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ABSTRACT

This report documents the founding and evolution of the Council for the Renewal of Undergraduate Education, established by the Swedish government in 1990 to enhance the quality of undergraduate teaching at Swedish higher education institutions and improve the status of university teaching vis-a-vis research. It discusses the state of Swedish higher education in the 1980s, government initiatives in higher education, and the need to improve undergraduate teaching. It outlines the various duties of the Council, including the implementation of integrated environmental studies in all disciplines; the recruitment of larger numbers of female students in technology and the sciences; the creation of national networks for computer assisted learning; the activities of the Swedish Case Method Centre; the development of the Teacher Exchange Program; and the initiation of an "academy" of eminent and committed academic teachers, the Society of Living Pedagogues. The report also describes the establishment of "sister" Councils in Australia and elsewhere. (Contains 38 references.) (MDM)

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HE028 937

An Attempt to Raise the Status of Undergraduate Teaching

Five years with the Council for the Renewal of Undergraduate Education

Hans Jalling & Mårten Carlsson

An Attempt to Raise the Status of Undergraduate Teaching

Five years with the Council for the Renewal of Undergraduate Education

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This report is dedicated to

Professor *Håkan Westling*, then President of Lund University,
who had the ability to see beyond the horizon,

and to

Professor *Sverker Gustavsson*, then Deputy Minister of Education,
who had the political courage to try a vision in real life.

Photos without captions
Page 9 Eagle Owl Photo Birger Larsson/Megapix
Page 62 The River Västerdalälven Photo Anders Norderman/Megapix

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Hans Jalling & Mårten Carlsson
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Editors Note

This special issue of *Studies of Higher Education and Research* is slightly different from the essays and articles which are normally published in the series.

Its is not a traditional scholarly research report but rather a factual account of an ambitious Swedish policy initiative in the field of undergraduate education and teaching during the 1990s.

The Council for Studies of Higher Education considers it, nevertheless, important to publish this detailed account, or self-evaluation, for three main reasons:

Firstly, it deals with a problem which continues to be at the centre of discussion in practically all national higher education systems today.

Secondly, the Swedish initiative of promoting undergraduate teaching by introducing a system used in research funding has aroused international interest, which seems to be a good reason to present an extensive discussion on the achievements and problems of *The Council for the Renewal of Undergraduate Education* during its first years to an international audience.

Thirdly, besides its main obligation: to initiate and sponsor basic research in the field of higher education and research, *The Council for Studies of Higher Education* should also, according to its instruction, spread information on recent developments and changes in Swedish higher education and research policy planning.

Thorsten Nybom
editor

Summary

This is the story of a unique Swedish experiment to enhance the status of undergraduate teaching. It has its roots in the situation at the end of the 1980's, when faculty and students were dismayed at the educational climate in Swedish institutions of higher learning. A Government Commission was appointed in 1989 which, among other things, suggested that a ***Council for Undergraduate Education*** *should be established for a three year trial period from 1st July 1990. The birth of this Council and its first years are described, and its expansion - by Government decree or through initiatives of its own - is documented.*

There are two Government assignments, the implementation of ***Integrated Environmental Studies*** *in all disciplines and courses at all institutions of higher learning, and the attempt to* ***Recruit more Female Students to Technology and the Natural sciences****, as well as the Council's creation of national networks for computer assisted learning, multimedia in medical and modern language education, and the initiation of an "academy" of eminent and committed academic teachers, the Society of Living Pedagogues. The Swedish Case Method Centre, the Council's information services, and the international teacher exchange programme are also covered.*

The methods and procedures of the new Council were evaluated in 1992 which led to the creation of an autonomous permanent organisation from 1993. In the meantime the idea of an Undergraduate Council had been

copied in Australia which has made fruitful co-operation with a Sister Council possible.

The account is concluded by some reflections on the merits of having a parallel reward system, built on peer review, for undergraduate education and research.

8

The hydraulic ram

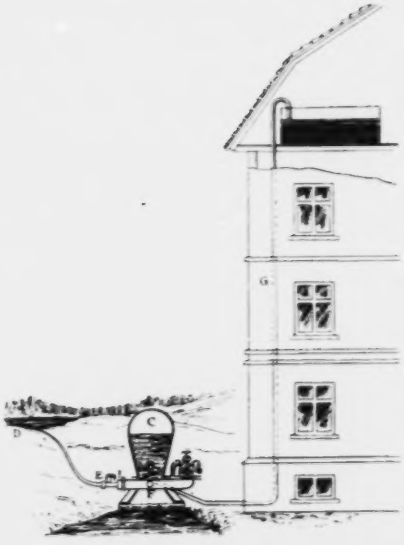
With this pump water is lifted from a low level to a high level without addition of any external energy.

Is the principle of conservation of energy applicable or have we invented a *perpetuum mobile*?

How and why does it work?

How is it started?

How is it stopped?



The hydraulic ram was invented in the 19th century by the brothers Montgolfier. Due to the introduction of cheap electric energy the pump disappeared from common use at the beginning of this century.

From the Council Project *Solving Practical Problems in Chemistry*. Dr Anders Axelsson, Lund University.

Introduction

Educators in all industrialised countries are trying to come to grips with undergraduate education, and to tip the balance of academic interest from research towards an equal interest in teaching. In spite of many conference presentations, learned articles, and books, so far relatively little has been achieved. It may be unfortunate, but teaching has less status than research (although academic interest may differ in different countries, cf the table on p 24).

In 1989 the Swedish Government decided to tackle the problems of undergraduate education by appointing a special commission. In contrast to previous university commissions this was a non-political one, composed entirely of academic teachers and students. When the Chairman of the Commission, Professor *Håkan Westling*, then President of Lund University, analyzed the possible causes of the low status of teaching, he suggested that an important factor might be the absence of measures of excellence. In research this is provided by peer review, in publishing, and in competition for grants. Moreover, the successful researcher is made **visible** and obtains **collegial and public status.** The eminent teacher, on the other hand, although well-known to the students, is seldom well-known within the academic community (or indeed to the general public). The teacher seldom carries money to the department or university; on the contrary, he or she only appears on the expense side of the budget. In other university systems, e g in private

The Chairman and the Secretary discussing project applications. Photo: Karin Järplid.

universities in the U S, the efforts of the successful teacher are apparent also on the income side in the form of increased tuition fees.

To enhance the quality of undergraduate education it would be necessary to improve the status of teaching. To improve the status of teaching, it would be necessary to provide **academic visibility** also **for teachers**. This **might** be achieved by having a **similar award system for established researchers and teachers**[1], wanting to test new ideas.

1 It is always pointed out that the academic systems seem to favour the researcher when it comes to promotion. However, this might not be the point – the newly hatched researchers have little chance of getting a Research Council grant; they have to rely on the reputation and help of their academic mentors. The same might be true for the educational side of academic life; it is the **already established** (i.e. tenured) **teacher** that should be competing for an Undergraduate Education Council grant (and hopefully, bring some new and young academics into the project!).

Thanks to the then Deputy Minister of Education in Sweden, Professor *Sverker Gustavsson* (social democrat), the Westling idea was given a trial run. Thus, the procedures, efforts, and results of the Council for the Renewal of Undergraduate Education are empirical facts, not wishful thinking or conjectures. Over the past few years we have received a sufficient number of statements from academic leaders, teachers and students to convince us that an Undergraduate Education Council with the same status and organisation as the Research Councils, **can, in fact, be an important instrument to enhance the status - and thus the quality - of undergraduate education.**

Not least in view of the considerable interest shown in the Council from the academic communities in other countries, we feel that the first five years of the Council's work should be recorded and made available for international academic scrutiny. During this period the Council's yearly budget has increased from SEK 5 million to SEK 45 million, and it has won, at first temporary, later permanent autonomy as a national agency directly under the Ministry of Education. It was given a positive evaluation of one of the world's leading experts in the field of higher education in 1992. The concept was copied in Australia, where a Sister Council - which in its turn has been given a positive evaluation - was created in 1992. Lately, British and German[2] educators have demonstrated a keen interest in Professor Westling's concept - the **Swedish Council for Undergraduate Education**.

In the very competetive research world it is important to be heard and seen - **to be visible**. Why should the educational world be different, particularly when modern information technology will increase compe-

2 Cf the invitation to the chairman to present the Council at the Inaugural Session of the *Centrum für Hochschulentwicklung* in January 1995. Mårten Carlsson, *Das schwedische Modell der Qualitätssicherung*.. In Detlef Müller-Böling (ed). *Qualitätssicherung in Hochschulen*: Verlag Bertelsmann Stiftung, Gütesloh, 1995

tition between institutions not only within the country but internationally?

We are greatly indebted to Professor *Thorsten Nybom*, Secretary of the Council for Studies of Higher Education, who, after due process of reviewing, has very generously offered to publish this report in his series *Studies in Higher Education and Research*. We are also grateful for Professor *Tony Becher's* continued interest in the Council's work and his readiness to read and comment a typescript version.

The translation of professional titles is always a dilemma. In this report we have followed the US tradition. Swedish *Rektors*, corresponding to British Vice-Chancellors, are referred to as Presidents or Principals. Both (full) Professors (i.e. chairholders) and *Docents*[3] are called Professors. Senior lecturers, who are not docents (being doctors or licentiates) are referred to as Dr.

The (official) Swedish texts have been rendered into English by Hans Jalling.

Stockholm in October 1995

Mårten Carlsson
Chairman 1990-1995

Hans Jalling
Secretary and Executive Director

3 *Docents* are persons who have been recognized as well qualified researchers by their institutions (the title is awarded by the Faculty Boards). *Docent* is, for all practical purposes, an honorary academic title that refers to competence rather than to post. Most Swedish *docents* seem to "translate" their position as Associate Professors.

The Status of Undergraduate Education

in Sweden in the Late 1980's

At the beginning of the 1980's the relation between funding for undergraduate education and funding for research was close to 50/50. At the end of this decade the relation is about 35/65 ... which amounts to the transformation of the institutions of higher education from teaching institutions that were also engaged in research to research institutions involving their faculty in teaching.

GUNNAR BROMS, 1990 SWEDISH UNIVERSITY CHANCELLOR

With strained public finances Sweden - like most other industrialized countries - experienced a series of cuts in the funding of higher education in the 1980's. However, the strong Swedish tradition of promoting research and development, not least nourished by the trade unions, tended to shield research funding from substantial reductions. While the educational sector[4] saw a yearly cutback of its grants with 2-3%, research funding - particularly if external funding from research councils and industry is included - had an annual real growth. This, of course, created a growing imbalance between the two central tasks of higher education: teaching and research.

4 The Swedish funding system has two separate basic grants, one for undergraduate education and one for research/doctoral studies.

15

The great expansion of higher education in the 1960's had been made possible by creating the position of *universitetslektor* which was designed as a full-time teaching position[5], in spite of the fact that a *universitetslektor* by statute law must be a Ph.D. with a research record. From the late 50's the bulk of undergraduate teaching has been carried out by *universitetslektorer* (with the exception of professional schools, including law, where small and specialised departments made professorial teaching necessary - there were no or very few *universitetslektorer*).

> *The mission of universities is research and undergraduate education, but it is by no means evident that this double role is best fulfilled by the same workload for each individual academic post.*
>
> RAGNAR EDENMAN 1958, MINISTER OF ECCLESIASTICAL AFFAIRS

It goes without saying that this internationally unique academic position which was seen as a life-time teaching post without possibilities for research, was constantly criticized by the academic community. This has been particularly true after 1972, when all teaching given by professors, docents holding a research appointment, and research assistants was (administratively) included in the research part of the universities' grants. This new model was intended as a much needed strengthening of doctoral courses and research supervision; however, as the reform only took account of academic positions and not of a person's general academic competence, it aggravated the cleavage between "researchers" and "teachers".

It is true that many professors saw the new system as an official consent to leave undergraduate education altogether and to concentrate their efforts on research and research supervision. At the same time a department's allotted teaching hours had become an important

5 The first *universitetslektorer* were appointed in 1959, following an experimental period of "pedagogical *lektors*" which started in 1955.

support mechanism for younger academics, and professors wanting to teach undergraduate courses were often eyed with suspicion within the department. Hence, the number of professors actively engaged in undergraduate teaching shrunk drastically, and many Swedish students have graduated from their university without ever having been taught by a full professor.[6]

> *The two grants were also handled by different bodies within the University, and submissions to the Government treated differently with Regional Boards[7] adjusting the budgets for undergraduate education. At the Ministry of Education different Deputy Ministers (and later, different Ministers) were responsible for research and undergraduate education. But the clear-cut separation of research and teaching budgets in Sweden has led to an administrative (and professional?) apartheid in the universities, which in turn has led to a kind of academic schizophrenia. This makes it difficult to maintain these vital connections between science and education.*
>
> PETER SCOTT 1991
> EDITOR-IN-CHIEF, THE TIMES HIGHER EDUCATION SUPPLEMENT

In course of time it became evident that this separation of undergraduate teaching and research had negative effects on academic life, and in 1977 a Government Commission was appointed to review the structure of academic positions with the explicit aim of reducing the great variety of academic positions and establishing fewer but internationally recognized positions. In their report which was presented in 1980[8], the

6 An additional negative factor was the often very detailed teaching instructions issued by *linjenämnderna* (supra-departmental Programme Committees).

7 6 Regional Boards with lay majority were established in 1977, partly as a compromise between the proponents of an academic majority and the proponents of a non-academic majority in the University Councils. They also demonstrate the view that higher education should be part of regional policy. The Regional Boards were abolished in 1988.

Commission recommended that all Ph.D.'s - i.e. including *universitetslektorerna* - should do at least some research work.

A Government Bill 1984[9] followed this recommendation, and the new system was formally introduced 1st July 1986. However, much to the dismay of *universitetslektorerna*, in contrast to the professors, they did not have research work included as a **compulsory** component in their duties.[10]

> *The increase of quality in teaching that will be a consequence of a diminshed teaching load for the individual teacher, must be achieved at the price of less classes for the students.*
>
> LENA HJELM-WALLÉN 1984, MINISTER OF EDUCATION

As most of the research funding was to be found outside the institutions and awarded in national competition, the majority of *universitetslektorerna*, having been out of research for a long time, stood little chance of getting these grants. It is true that all universities had some funding for "maintaining research competence"[11], but, as is only natural, the best proposals had a tendency to win the institutional grants as well, and the greater part of *universitetslektorerna* still found themselves "confined" to undergraduate education. This was particularly the case at the new University Colleges where the notion of teaching load was very strong.

8 *Lärare i högskolan. Förslag till ny arbets- och tjänsteorganisation.* SOU 1980:3

9 Prop 1984/85:57.

10 The fundamental principle of the Bill was that the academic workload should be distributed according to academic competence rather than positions in the various departments, giving the opportunity for some to do more research for a period of time which could be compensated by more teaching at a later time. In many departments a reduction of teaching was also foreseen by the Government to make room for more research activities.

11 The Bill had made a clear distinction between "front-line research" (i.e. research in the common sense of the word), and "maintaining research competence", i.e. a few months "off teaching" to allow *universitetslektorerna* to follow the development in their particular research areas.

At the same time the imbalance in funding between research and education also saw a new academic "class" emerge: the researchers without teaching obligations. Having financed their doctoral studies as research assistants rather than as teaching assistants in the early or mid 70's, the expansion of research volume[12] made it possible for a whole generation of new academics to live on external research grants, taking no or little interest in the educational aspect of academic life, or conversely, having little chance to teach as the reduced funding made already employed teachers redundant.

He or she who lives on external grants only, leads a dangerous life, though. A further effect of the 1986 reform of academic positions was that all *universitetslektorer* were tenured, and these posts immediately became very attractive - as a life line! In spite of academic rhetoric on the importance of teaching, the determining factor when appointing *universitetslektorer* was, with few exceptions, their research record. Thus, members of the new class of "researchers" tended to land these posts, only to vanish into full-time leave for new research contracts. So strong was the primacy of research that fulltime leave for research purposes was very rarely denied, even if this would jeopardize a department's undergraduate teaching; a research contract gave the right to the grantee to be absent from deparmental chores. In more than one department first year students met only teaching assistants, as all senior staff were on leave doing research.

The cleavage between undergraduate teaching and research was also mirrored in academic terminology. The old term "academic teachers" (which included all faculty, doing research and teaching) was more and more replaced by "researchers" and "teachers" in official language, implying that an individual would either be doing research or teaching.

12 A new and important source was the sectoral research grants which were awarded through bureaucratic procedures rather than through peer review. Many less brilliant researchers made their living from such grants.

It is obvious that the emphasis on research affected faculty morale. He or she who could, fled into the world of research. And those who could not get rid of their teaching assignments were embittered by the constant lack of funds for educational purposes. The researchers had all the prestige, they toured the world, and they had personal computers and service staff. The teaching staff, on the other hand, still found themselves without tenure after many years of service and were denied most of the fringe benefits enjoyed by the researchers.

The teachers felt badly treated by authorities and colleagues alike, were not happy in their work, and therefore found themselves new interests outside the universities (almost anything from financially compensating consultancies to aesthetically rewarding rose-gardening was considered better than teaching).

> *The encouragement of better teaching will be most effective if it is seen as an intellectual responsibility rather than a pedagogical task.*
>
> PETER SCOTT 1991
> EDITOR-IN-CHIEF, THE TIMES HIGHER EDUCATION SUPPLEMENT

Undergraduate education had a very low status at Swedish universities

In June 1988 the Association of Swedish Student Unions (SFS) wrote to the then Board of Universitites and Colleges (with a copy to the Ministry) complaining about the "pedagogical environment at the universities" and suggesting a series of remedial steps.[13]

The campaign for the Renewal of Undergraduate Education had started.

> *The decisive factor is how the academic work is organised, and the prevailing atmosphere between the teachers and in relation to students.*
>
> SVERKER GUSTAVSSON 1991, DEPUTY MINISTER OF EDUCATION

13 SFS dnr U 27-3/88.

20

The 1989 Swedish Higher Education Commission

Having been constantly reminded by the Association of Union of Students of their June 1988 letter,[14] the Ministry of Education and Science took action in February 1989 when an all academic[15] Commission of Higher Education was appointed,[16] often known as the Westling Commission, after its chairman, Professor *Håkan Westling*, then President of Lund University, and Chairman of the Swedish Academic Rectors' Conference.

In the Commission the Universities were represented by Professor *Berit Askling* (Education, Linköping), Professor *Leif Lewin* (Political Science, Uppsala[17]), President *Jan S Nilsson* (Physics, Göteborg), and Professor

14 It would be a mistake, however, to think that only the students were worried about the pedagogical standards of higher education; e.g. Örebro University College had also written to the Ministry about the need for pedagogical development on 19th January 1989.

15 This should be seen in contrast to the preceding major Commission on Higher Learning - U 68 who were the architects of the 1977 Education Reform Act - which consisted of civil servants only with no representation from the academic community.

16 Department of Education and Science 27th February 1989.

17 Also representing the Association of Swedish University Teachers.

21

Astrid Stedje (German, Umeå), and the newer University Colleges by Principal *Birgitta Stymne* (Gävle/Sandviken).

The Health Care Colleges, being part of the university system since 1979, were represented by Principal *Ulla-Britt Carmnes* (Jönköping) and the Association of the Students Unions by Mr *Alf Nilsson* (University of Umeå).

The Secretariat was placed at Lund University with Ms *Eva Falk-Nilsson* and Mr *Hans Näslund* as Secretaries. The decentralized location of the Commission's Secretariat further emphasized that this was not a Government-driven analysis, but something that has its roots in the academic soil.

In its directives[18] the Government identified several tasks for the Commission

- depict the present state of the art,
- identify and evaluate current criticism of undergraduate education,
- propose remedial measures with the "good department" as a general goal.

The Government also prescribed that

> The Commission should work openly and unconventionally, e.g. through the initiation of experimental projects, and by publishing preliminary results such as surveys of academic achievements et.al. By this means the Commission should be able to stimulate the debate on pedagogical principles and the development of undergraduate education even before the final findings of the Commission are available.[19]

The final report of the Commission should be given to the Government by 31st December 1991.

In Chapter Two of the Report - Background and Way of Working - the Commission writes:

18 Cabinet meeting 16th February 1989: Dir. 1989:7.
19 SOU 1992:1, p 301.

> The status of undergraduate education within the system of higher education was regarded as the fundamental problem in our inquiry. The status of teaching and undergraduate education is considerably lower than that of research, and its relative position has successively deteriorated during the last decades.[20]

Thus, from the very beginning of its work, the Commission gave much energy and thought to the problem of the status of undergraduate education. It is evident that this is not an isolated Swedish problem; quite on the contrary, from the beginnings of "mass education" in the 1960's, most countries have complained about faculty's receding interest in teaching. The proceedings of the yearly international conference on Improving University of Teaching[21] gives a good overview of 20 years.

Nevertheless, it is a fact that Swedish faculty are particularly research oriented, as can be seen in the diagram on p 24.

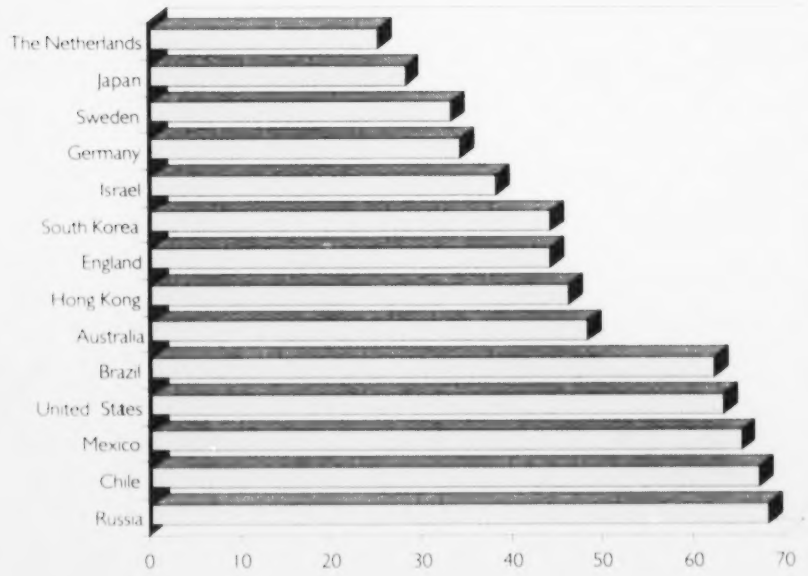
The diagram is drawn from the study carried out by the Carnegie Foundation for the Advancement of Teaching, *The Academic Profession*, in which the profiles of the professoriate in fourteen countries are compared on the basis of a large questionnaire (1992). As can be seen, only faculty in the Netherlands and Japan are less interested in the teaching side of academic life than Swedish faculty. Two thirds (67%) of the Swedes would do only research if they had a free choice of assignments.

This should be compared with countries like England and the USA - where complaints about the low status of teaching are legion; in England just under half of the academics would be equally happy doing teaching, and in the USA two thirds of faculty prefer teaching to research. It is interesting to note that, disregarding Japan, the three countries most negative to teaching of all have universities modelled on the famous research university of Berlin (1810); perhaps the rights of professors there definied still govern the thinking of the professoriate in these countries?

20 SOU 1992:1, p 45.

21 The first conference was held in Heidelberg 1975.

Interest in teaching in relation to interest in research (% of faculty)[22]



Thus, the Commission had set itself a formidable task: although there was an international consensus that university teaching has too low status, no country had found a proper remedy. Could the Commission?

22 Ernest L Boyer, Philip G Altbach & Mary Jean Whitelaw: *The Academic Profession. An International Perspective*: The Carnegie Foundation for the Advancement of Teaching, 1994, table 17, p 81.

A bold new solution

to an old problem

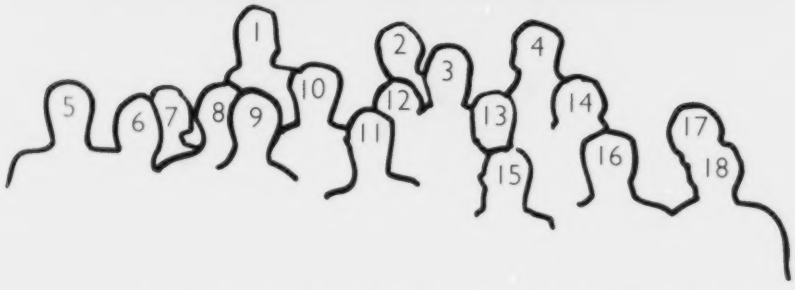
Turning the Commission's problem up side down, Professor *Westling* asked himself: **what gives academic research such high prestige**, and he came up with the following answer

> first, that it operated in large part on the basis of grants which created a visible reward system for active researchers; second, the judgements of merit depended on a peer review mechanism which helped to establish professional reputation of a fair and mutually credible basis.[23]

However, there seems to be little sense in denying the obvious fact that the academic promotion system favours research[24], not only in Sweden, but in all industrialized countries. With an anticipated European common labour market - not least for academics - a Swedish uni-lateral change of promotion principles may not even be to the advantage of undergraduate education. Could other ways be found to increase the status of undergraduate education?

23 Quoted after Tony Becher: *The Learning Council*. Ds 1992:120: Utbildningsdepartementet, p 17.

24 Cf SOU 1992:1, pp 112-113.



1 Håkan Westling, Chairman. 2 Dan Andersson, Expert. 3 Caj-Gunnar Lindström, Expert. 4 Alf Nilsson, Member. 5 Ann Fritzell, Expert. 6 Håkan Danielsson, Expert. 7 Lillemor Kim, Expert. 8 Birgitta Stymne, Member. 9 Jan S Nilsson, Member. 10 Birgit Ödvall, Secretary. 11 Leif Lewin, Member. 12 Berit Askling, Member. 13 Hans Näslund, Secretary. 14 Eva Falk-Nilsson, Secretary. 15 Astrid Stedje, Member. 16 Mårten Carlsson, Expert. 17 Madeleine Harby, Ass. Secretary. 18 Ulla-Britt Carmnes, Member.

It must be borne in mind, of course, that the fact that academic promotion relies heavily on research, does not explain why the already established academic person also shuns teaching. What does he or she have to lose?

Certain keywords from the passage quoted above come immediately to mind, e.g. **visibility** and **professional reputation**. Others could be added, such as **responsibility, freedom,** and **international contacts** in the form of conferences and study periods providing stimulating travel experiences.

One important reason for the creation of the research councils was, of course, a general belief that research is too important to be left to the institutionalised (and possibly stale) patterns of distribution of funding. Now, just supposing that teaching should have the same status as research within the universities, would it not be reasonable to have the same type of organisation for dealing with individual proposals to experiment with teaching as within the research community?

The Commission came to the conclusion that a missing factor within undergraduate education was an **academic council** which could cater for all those (already established academics) who, after all, were interested in teaching.[25] A Council which would have such a reward system that academics would feel at home. A council that would permit the interested and committed teacher to ripe the same joy from an undergraduate education grant as from a research council grant! A council that would make the **hitherto invisible teacher visible**.

There would obviously be some prerequisites: grants must be sought in national competition, applications must be subject to rigid academic

25 Although the Commission itself was unanimous, these views were not shared by one of the appointed advisors, Principal Lillemor Kim (Mälardalen University College) who feared that a national organisation would reduce local responsibility and therefore registered her reservations in the Commissions final report. SOU 1992:1, p 294.

scrutiny by peers, grants must be of roughly the same size as research grants and on a two to three year basis, grants must include funding for international contacts, and grantees must have the full responsibility for the results of their proposals. Grants should be open to committed and innovative individuals rather than to the existing academic structures like Faculties or Programme Committees (cf the Research Councils!). Applications should not be vetted by the institutions; on the contrary, whatever the views of the established hierarchy, the inquisitive academic mind should be rewarded.

Seen from the point of view of a university department, it should be remembered that 20-60% of all research has external funding. After careful peer review this funding is dedicated to **individual academics** who also **control** such grants. Undergraduate education has very little external funding, and if there is, the decision to allocate a grant certainly has not been prepared by peer review.

On 7th December 1989 the Commission proposed to the Government that **a special academic council for undergraduate education** should be established from 1st July 1990.[26]

Although the idea of an academic council for undergraduate education did not get immediate academic support, the then Deputy Minister of Education, Professor Sverker Gustavsson, gave his political support to this bold and unconventional idea to solve a hitherto unsolved problem.

26 SOU 1992:1, p 321

The Establishment of a Council

Although the proposal for this new council was received when the budget process for 1990/91 was almost completed, the Government included the creation of a council for undergraduate education in an otherwise rather tight budget, presented on 10th January 1990. The then Minister of Education and Culture, Mr *Bengt Göransson*, states in the Budget:

> In conformity with the 1989 Commission on Higher Education, I find it exceedingly important that the interest for quality of undergraduate education is increased at our universities. It is imperative that undergraduate education becomes similar to research when its quality and success are being measured. Thus, it must be as natural to discuss questions of quality in undergraduate education, to show an interest in how the teaching support is designed, and how good teaching is evaluated. I therefore propose that a Council of Undergraduate Education should be created at the National Board of Universities and Colleges. For a trial period of three years the Council should have the possibility of awarding grants to projects, intended to develop undergraduate education. Thus, the Council will be in a position to make teaching efforts of a fundamental and innovative character the subject of debate and interest.
>
> Members of the Council should first and foremost be experienced university teachers, researchers with a connection to this area of research, and students. I intend to come back to the Government with more precise propositions about the composition of the Council and its connection to the National Board.
>
> For the fiscal year 1990/91 I calculate a budget for the Council of 5 800 000 kronor, and for the fiscal year 1991/92 an additional 500 000 kronor. The

> Council has been allotted resources that have been set free through the rationalisation of the administrative duties of the universities.[27]

The idea of an Undergraduate Council did not find response with the Liberal Party, and with their Chairman as first name, the party filed a Motion that the creation of an Undergraduate Council was against the accepted concept of decentralisation of higher education[28]. Thus, the proposal should be rejected. The Centre Party, on the other hand, putting particular emphasis on the parallel with the Research Councils, moved that a Council should be established, but as an autonomous agency directly under the Government and not as a part of ("at or within") the National Board.

The majority opinion of the Select Committee on Education and Research wrote in their recommendations to Parliament:

> The Committtee finds it important that the quality of undergraduate education is given increased attention. The Committee has no objection to a special council being created at the National Board of Universities and Colleges, or to that such a council having special funds at its disposal to stimulate the development of undergraduate education during a test period of three years. With this statement the Committee recommends the rejection of Motions 1989/90:Ub 758 point 7 and 1989/90:Ub 803 point 3.[29]

It may be said, of course, that the records of the Select Committee do not breathe great enthusiasm for the idea of an undergraduate council. However, even in times of financial constraint, the Members were willing to try this vision and to support it financially.

Liberal Members and Members for the Centre Party registered their dissent. Parliament followed the recommendations of the majority, and it was decided to create a Council at the National Board of Universities

27 Prop 1989/90:100, Bil 10, p 43.
28 Mot 1989/90 Ub803, p 8.
29 1989/90:UbU18 p 11.

and Colleges from 1st July 1990, with a budget of SEK 5 800 million the first year.

Through informal contacts with the Government, and the general desire to make this new Council an academic Council in the true sense of the word, it was quite clear that the Members must be nominated by relevant academic and student bodies rather than by the bureaucracy.[30]

After consultations with the Higher Education Commission, the University Chancellor decided to appoint Professor *Mårten Carlsson*, President of the Swedish Universities of Agricultural Sciences, Vice-Chairman of the Swedish Academic Rectors' Conference, and an expert in the Higher Education Commission, chairman of the Council. Although his university has a research profile with c 80% of its funding geared towards research, Professor Carlsson is a known protagonist of undergraduate education and has devoted much time and effort to create positive relations with teaching faculty and student organisations.

The other nine members should be nominated as follows:

- one member by the Swedish Academic Rectors' Conference,
- one member by the New University Colleges Rectors' conference,[31]
- one member by the Principals of the Colleges of Arts and Applied Arts,[32]

30 For formal reasons all Members would be appointed by the Chancellor of the Swedish Universities, as the Council was seen as a part of the National Board of Universities and Colleges.

31 The new university colleges correspond to the Polytechnics in Britain with two important differences:
(1) they were parts of the unitary university system,
(2) they were supposed to be teaching institutions only with no "permanent resources for research".

32 Autonomous Colleges for the Arts and the Applied Arts only exist in Stockholm, as the equivalent organisations at Lund, Göteborg, Linköping and

- one member by the Prinicipals of the Health Care Institutions,[33]
- three members by the Association of Unions of Swedish Students,
- two members by the University Chancellor.[34]

The Swedish Academic Rectors' Conference nominated Professor *Nils-Holger Areskog*, former Vice President of the University of Linköping and the Intellectual Father of the Health Care University which constituted a problem based approach to medical education in Sweden.

The New University Colleges' Rectors Conference nominated the new President of the Stockholm School of Education, Professor *Ulf P Lundgren*, who is scholar in the field of curriculum research, and also an expert on school education within the Ministry of Education[35].

The Principals of the Colleges of Arts and Applied Arts nominated Professor *Olle Käks*, a painter who is also the Principal of the Royal College of Arts.

After consultations Ms *Ulla-Britt Carmnes*, Principal of Jönköping Health Care College, and a Member of the Higher Education Commission, was nominated as the representative of the Health Care Colleges.[36]

Umeå are integral parts of the universities. By tradition the Heads of relevant Schools or Departments at the other universities are members of the Rectors' conference.

33 This organisation had not been formally constituted in spring 1990; however, a candidate was found after extensive consultations by the Chancellor.

34 Giving the Chancellor the possibility to "rectify" imbalances between gender, disciplines and geographical distribution.

35 After only a couple of months, Professor Lundgren was appointed Director-General of the new National School Board and resigned from the Council. The New University Colleges Rectors' Conference nominated Professor Anders Fransson, Principal of Borås University College, as his successor. Professor Fransson is an educationalist by training.

36 The Conference of the Principals of Health Care Colleges was not formally constituted in 1990.

The Association of Unions of Swedish Students nominated three persons

- Mr *Johan Rockström*, graduate of the Agricultural University, and outgoing Vice-President of the Association, as a representative of the central student body.[37]
- Mr *Alf Nilsson*, student of Arts at the University of Umeå, and student Member of the Higher Education Commission, as a representative of the traditional universitites.[38]
- Mr *Mats Fagerberg*, student of Social Sciences at the University College of Örebro, as a representative of the new University Colleges.[39]

After consultations with the Chairman and the Secretary, the University Chancellor decided to appoint Professor *Christina Ullenius* and Dr *Björn Sprängare* to the additional two seats. Dr Ullenius, who is a Professor of Chemistry, was the Vice President of Chalmers University of Technology[40] and as such responsible for the undergraduate education of that university, a well-known advocate of quality undergraduate education. Dr Sprängare who has his PhD in Forestry had recently moved from being the CEO of one of Sweden's major Forestry Corporations[41] to become CEO of a major Insurance Company, Trygg-Hansa.[42]

37 Mr Rockström was unanimously elected Vice-Chairman of the Council. As such he was succeeded by Mr Jonas Plantin in August 1995.

38 In 1991 Mr Nilsson was succeeded by Mr Jonas Plantin, then a student of engineering at the University of Linköping.

39 Mr Fagerberg was succeeded in 1993 by Ms Åsa Bergqvist, President of the the Union of Students at Örebro University College.

40 Professor Ullenius is now President of the University College of Karlstad, and Chairperson of the Engineering Research Council.

41 MoDo.

42 Unfortunately, major reconstructions of the Trygg-Hansa Corporation prevented Dr Sprängare from taking an active role in the Council, and he resigned in spring 1991. He had no successor, and when the Council was

The Council. Photo: Anders Skoglund.

The Higher Education Commission proposed Dr Hans Jalling, as Secretary to the Council. He is a former universitetslektor and Director of Undergraduate Education who had been in charge of the National Board's faculty and staff development unit for two decades, and in this capacity had been involved in several reforms of undergraduate education.

For the first time in modern Swedish university history, undergraduate education had got a strong academic body that was not only advisory or preparatory, but actually trusted with funds (over which the Council had full control) to help to enhance the quality of undergraduate education.

made autonomous in 1992, the Government decided that it should have only academic Members.

34

Traditional Council Duties

Unlike the research councils which typically cater for one or two Faculties, the Council for the Renewal of Undergraduate Education should accomodate the whole spectrum of undergraduate education. Naturally this difference has affected our procedures.

The Council held its first meeting on 17th October 1990. It decided to concentrate its efforts during the first year on creating an academically acceptable procedure for awarding grants to projects within the Council's sphere of interest. Following the example of the Bank of Sweden Tercentenary Foundation - which also accepts applications from a wide range of academic disciplines - the Council instituted a system of applying for funding in two steps. All applicants must submit a "sketch-application" of at most 3 pages outlining the principle **idea** of the proposed project, which is then reviewed by the Council *in pleno*.[43] Those projects that seem to be of particular interest to the Council are

43 Before the Council meeting 4 subcommittees for different subject areas (The Humanities and Social Sciences; Natural Sciences and Engineering; Medicine and Health Care; and Teacher Training and the Applied Arts) have given their comments. Each subcommittee consists of one or two academic Members, one student Member, and one or two Members of the Society of Living Pedagogues.

then invited to submit "full applications" - normally twice as many as could be expected to receive grants. Thus the Council avoids making applicants without a real chance to win project support spend weeks on doomed applications. Bearing in mind that, on the average, 75% of the "sketch-applications" are turned down, much academic time has been saved by this procedure.

The procedure has been well received by the academic community, cf Professor Becher's evaluation

> The views put forward of this process were uniformly favourable. Applicants welcomed the fact that, if their initial ideas were found wanting, they would not have spent a great deal of time working on a proposal which was immediately rejected. Those who got through to the second stage considered that they were allowed a reasonable time to work out their ideas in more detail. It was also interesting that three project directors independently admitted to having heard about the Council only a day or two before the submission deadline: the intitial requirement for no more than a sketch proposal enabled them to put their ideas together in time to avoid a lenghty delay.[44]

The overall criterion used by the Council is that something **new and interesting should happen to the students**, and that this should be something which is unlikely to happen without a Council grant. Projects involving only faculty and staff, or being just reflections on what might be done are not supported.

Full applications are reviewed by three external experts. The first review is by an expert in the particular discipline of the application, if possible a Member of the Society of Living Pedagogues (cf p 115 ff), and the second by an academic with a broad knowledge of the appropriate faculty or school (normally a Dean or a Chairman of a Programme Committee, sometimes a Vice President or a President). Unlike the Swedish research councils, our Council **insists on a non-Swedish**

44 *The Learning Council*. Ds 1992:120: Utbildningsdepartementet, p 23.

evaluation of all full applications; hence at least one third expert[45] in the field. Consequently, full applications have to be in English.

On 15th December 1990 - less than two months after the Council's first meeting - more than 3 500 copies of the Council's policy for applications and evaluation of proposals were distributed to all Swedish university departments and institutions of higher learning. The deadline for the first application round was set for 1st February 1991.

The Council received no less than 220 "sketch-applications" amounting to more than SEK 75 million (ECU c 10 million). Although this was a success story beyond belief, it also put the Council in a very difficult predicament.

As stated by Mr Göransson, Mininster of Education and Cultural Affairs, when the Council was first proposed by the Government, the Council could count on an increase of SEK 500 000 in the 1991/92 Budget. The Government kept its part of the bargain which meant that, including the balance of the first fiscal year - when the Council did not fund any projects - the Council had total assets of c SEK 7,5 million to meet this enormous demand for teaching projects. As many of the proposed projects had a duration of two or three years, it seemed obvious that the Council would only be able to finance a small fraction of the applications, so appearing to be a merely symbolic organisation - drawing the attention of the academics from the real thing (research) to something that did not pay off at all (teaching).

However, the Parliamentary Select Committee of Education, chaired by Dr Lars Gustafsson[46] (social democrat), came to the Council's rescue. In an almost unique recommendation to Parliament, the Committee writes as follows:

45 With increased international co-operation the Council has aimed at one European, and one North American or Australian expert.

46 Dr Lars Gustafsson was also an *universitetslektor* in political science at Stockholm University.

> In its Recommendation 1990:UbU11, accepted by Parliament, the Committee has approved the Government's proposal for items under Miscellaneous Expenditure of Universites, etc (item D 10). Under this item funding is allocated for i.a. *the Council for the Renewal of Undergraduate Education* at the National Board of Universities and Colleges, for which SEK 6 823 000 has been allocated in the Budget. The Committee has lately learnt that the activities of the Council have been met with great interest among the Universities and Colleges, and that the submitted applications for funding of projects for the development of undergraduate education by far exceed the so far allocated resources. The Committee finds it justified that the budget of the council should be increased by SEK 5 million during the fiscal year 1991/92, and recommends Parliament, with a revision of its previous decision, that Miscellaneous Expenditure for Universites, etc should have an allocation of (78 697 000 + 5 000 000 =) 83 697 000.[47]

Thus, the Council could fund 28 projects from 1st July 1991. The pattern of activity of the Council for the Renewal of Undergraduate Education had been established, and was from now on given considerable academic and political support.

The Council's first 28 projects cover a wide range of disciplines, from language drill exercises in French using the computer rather than a teacher, over "the development of an interart working method as a means for pedagogic and artistic enrichment within each of the arts of film, TV, radio, and theatre, in the 3 year professional study programme of the Dramatic Institute" to "solving practical problems in chemistry", and "mathematics for the new Swedish engineering diploma".[48]

At the first round the Council also adopted the principle of awarding interesting ideas which had not been fully developed in the "full application" planning grants,[49] travel grants, or a combination of planning

47 1990/91 UbU12, p 89.

48 A complete list of projects supported can be found in the Council's database.; http://www.hgur.se.

49 Normally equal to a month's salary for the principal applicant.

Applicants Academic Rank

and travel grants. Of the 11 planning grants awarded in May 1991, 6 led to project support in the second round in October 1991.

One of the concerns of the critics of the Council had been that it should be swamped by either "mercenaries" - being far more interested in financial support than topic - or faculty without hope to be awarded a research council grant. However, already the first application round proved them wrong; ¾ of the applicants had an obvious choice of seeking money from research councils or for the development of undergraduate education, cf the diagram above. In fact, many of the Council's grantees have research grants as well.

This pattern has been constant over the years. It should be noted that in the first round 7% of the applications came from Colleges of Health Care or Colleges of Applied Arts where research fellows are very rare, and 15% from University Colleges where less than 50% of faculty are PhD's. These applications make up the bulk of the non-PhD group.

Over the years there has been a fairly stable pattern of institutions applying for funding with the Universities and the Professional Schools[50] accounting for about ¾ of the sketch applications.

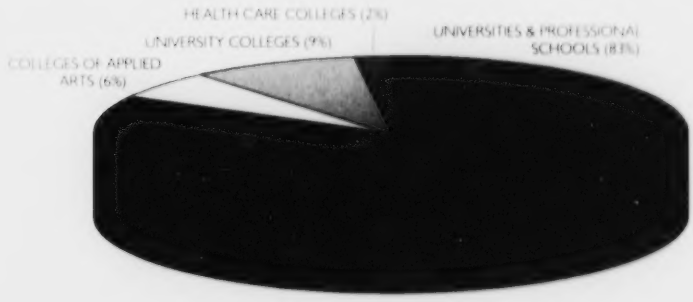
50 As the Professional Schools sometimes are part of a University, sometimes separate institutions, the distinction is difficult to

If one were to compare these figures with e.g. the number of academic teachers at the various institutions, one would find that

- Universities and Professional Schools are **over**represented,
- University Colleges are slightly **under**represented,
- Health Care Colleges are very much **under**represented,
- Colleges of Applied Arts[51] are **over**represented.

If one looks at the 109 projects that the Council has funded during its first five years, the dominance of the Universities and the Professional Schools is total, cf the diagram below.

Funded Projects 1991-1995



The fact that the new institutions in the system of higher education - the University Colleges and the Health Care Colleges - have been less successful in their attempts to win Council funding for their projects, has been of great concern to the Council. This was also noted by the Evaluator who writes

> maintain. Similarly, there are separate Colleges for the Applied Arts only in Stockholm; in all other places they are part of a University.

51 Including those that are parts of a University.

> This expression of egalitarian concern strikes an outsider as characteristically Swedish - in the UK system, if a particular group of academics failed to take advantage of the opportunities open to them, they would be left to rot.[52]

Members of the Council and the Council Secretariat have visited many of the new institutions in order to encourage the teaching staff to discuss educational problems and formulate relevant projects without much success. However, as the Society of Living Pedagogues (cf p 115 ff) now accepts members also from the University Colleges the situation may be amended - in fact, in the 1995 application round more applications than ever from the new institutions have been invited to submit "full applications".

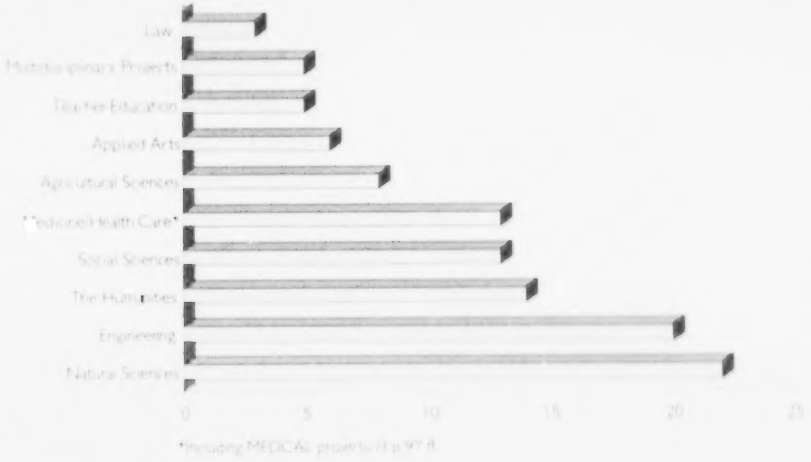
It could be argued, of course, that the Council has been too fixed on the customary "research council format" of applications, thus putting academics, less experienced in writing up research proposals, at a disadvantage. However, the number of awards won by teachers at the Colleges of Applied Arts seem to contradict such an assumption. In relation to number of staff and students, these colleges have been awarded more projects and funding than any other academic area.

Looking at the various branches of learning the following picture evolves:

The dominance of projects in the Natural Sciences and Engineering can be explained by the Government's instruction to the Council to specially cater for projects utilizing modern computer technology[53], and the fact that the dynamic processes of these disciplines particularly lend themselves to computer assisted learning. It would be a mistake, however, to exclude the Humanities and Law from areas of study where an intelligent use of the computer can be of great importance to learning. In fact, some of the most successful Council projects can be found among

52 *The Learning Council*. Ds 1992:120: Utbildningsdepartementet, p 40.
53 Prop 1992/93:169, p 224.

Number of projects in different educational programmes



*Including MEDICAL projects (1 p.97 ff.

these disciplines, e.g. Professor Wande's project *Senses in Co-operation* - the principles of which are now used in foreign language learning all over Europe - Professor Ragvald's *Multimedia Programme in Chinese* - which has attracted great attention in many countries - Professor Engwall's *FRiDA Project in French* - which is now used by almost every undergraduate student of French in Sweden - or Professor Seipel's *LEXLAB Project* - which has certainly changed the study programme in Law at Stockholm University - all make use of computer technology.

It would also be a mistake to assume that all computer based instruction replaces the teacher. While this is true in the FRiDA programme - exercises in French grammar where the computer patiently accepts the student's repeated mistakes e.g. regarding preposition (or no preposition) with French infinitives - several programmes have been designed to assist the lecturer, making it possible for students to draw their own conclusions with the help of their computers, when the lecturer pauses and invites a general discussion on the paradigms. Excellent examples of the latter kind are the programmes devised by Professor Claes Cassel (*Dynamic Computer Graphics* for lectures in

economic statistics) and Dr Gunnar Petersson (*Visual Interactive Electromagnetics* for lectures in theoretical electronics).

At the same time it should be kept in mind that success in the natural sciences or engineering does not depend on the use of the computer. Dr Axelsson's project *Solving Problems in Chemistry* where interesting and important problems are introduced for students' problem solving by giving the students already built laboratory equipment and asking the students the question "what does this prove?" (cf p 10) - or its reverse, Mr Eriksson's project *Experimental Studies in Fluid Mechanics* in which the students are given the solution to a problem and requested to prove it experimentally by home-made equipment - do not rely on computer competence.

In general, Swedish faculty have little knowledge of curricula and teaching methods in their own disciplines at institutions abroad. As part of the information services the Council has therefore commissioned what has become known as "disciplinary reviews". The idea of such reviews is to enable two highly qualified and committed academic teachers to identify significant teaching developments in a particular discipline in European countries outside Sweden.

A review begins with the exploration of databases and the reading of relevant literature and periodicals to establish interesting institutions in Europe that should be visited. Two to three weeks are spent visiting sister departments in several countries, discussing problems and development in teaching and student learning with faculty and students. The results are published in a report in the Council's series of Occasional Papers which is sent to all senior academics in that particular discipline. So far two reviews have been completed dealing with Environmental Study Programmes[54] and Mathematics;[55] five new reviews are under

54 Reinhold Castensson, (ed). *Miljöutbildning i Frankrike, Nederländerna, Storbritannien och Tyskland* (Environmental Study Programmes in France, Germany, the Netherlands and the UK). Occasional Paper No 1, June 1992.

55 Philip Brenner & Calle Jacobsson, *På jakt efter en främmande fågel - Innovativ*

43

way in Chemistry, Economics, History and Physics (in Europe and in the US).

In the Council's first annual report (1990/91) the Chairman summarized the *credo* of the Council in these words

> The long-term objective of the Council is to enhance the quality and status of undergraduate edcuation.
>
> To achieve this, it is vitally important that we approach undergraduate education with the same intellectual and academic rigour that is the hallmark of good research. Activities supported by the Council must be of the highest quality.[56]

matematikutbildning i Europa (Innovative Mathematics Education in Europe.) Occasional Paper No 10, June 1994

56. *Annual Report 1990/91*; Council for the Renewal of Undergraduate Education; p 10.

The Network

for Computer Assisted Learning

It stands to reason to suggest that computers may be a useful tool in higher education, e.g. to illustrate dynamic processes, to simulate extreme conditions that could (and should!) not be tested in laboratories, or simply to provide root learning in modern languages. The 1989 Commission on Higher Learning therefore comissioned two studies on the present (1990) use of computers at universities and colleges in Sweden. The first study dealt with the question wether new qualities could be added to student learning by the use of computers.[57] The findings of this study were that:

> the use of computers to a large extent made possible learning situations that promote intuitive learning. These findings are of fundamental interest as they show that the use of computers can give more sophisticated effects than simply using the computer as "a tool".[58]

57 Laurillard, D et al. *Computer simulation as a tool for developing intuitive and conceptual understanding*. Department of Education and Educational Research, Report No 1991:03, Goteborg University, 1991.

58 SOU 1991:2, p 266.

The second study mapped the actual use of computers in undergraduate education in Sweden.[59] This study gives a more varied picture: only every fourth university, professional school or university college had a policy for the use of computers in undergraduate education, and the question of whether or not to use computers seemed to have been left to the individual teachers, in spite of the fact that they often had unsatisfactory access to computers themselves.

The study also compared the Swedish situation with those at some institutions in other countries, notably in the Netherlands, Switzerland and the USA. The overall impression was that clear policies for the use of computers in education were missing also at the foreign institutions. Three reasons for this lack of policy were suggested: first, that the development of computer programmes is more costly than is often thought; second, that the development of such materials seldom gives the authors a tangible reward, either academically, or financially; and third, "and not least", the well-known academic syndrome of "not invented here".[60]

However, the situation in the UK was different, as the University Grants Committee had invested huge sums of money in the Computers in Teaching Initiative at the beginning of the 1980's, and had invited universities to set up Centres for various disciplines. In the late 1980's there were 20 such centres and a preliminary evaluation[61] of the effects of this investment recommended additional funding.

A study visit to the UK and a special study, carried out by one of the Swedish pioneers in the field, Professor Bengt Kjöllerström (Theoretical Physics, Lund), had convinced the Commission that Sweden should

59 K. Alvegård et al. *Projekt DATA-BULTEN. Datorns användning som hjälpmedel inom högskoleundervisningen.* Högskoleutredningen, projektrapport 1991:2.

60 SOU 1992:1 p 265.

61 French, S et al. *Report on the Computers in Teaching Initiative.* Prepared for the Information Systems Committee of the Universities Funding Council. June 1991.

follow the British example. In its final report the Commission therefore proposed that the Council should have funds for a three year trial programme with discipline oriented development centres for computer assisted learning.[62]

While the British initiative had poured thousands of thousands of pounds sterling over the British universities, the Council had a very limited budget of SEK 10 million (i.e. less than UKP 1 million). It is true that about one quarter of the first round applications in February 1991 somehow involved computers in undergraduate education, but if the Council were to fund some of these proposals, there simply would not be room for the creation of more than one or, at the most, two centres. In which disciplines? The "obvious ones", like physics and chemistry (cf the Laurillard report), or more unlikely ones like history and philosophy? It seemed to the Council that some other solution had to be found.

In early 1991 the Council asked Professor Kjöllerström to develop a national "Network for Computer Based Learning", and from August 1991 he has been seconded to the Council on a half-time basis to serve as "Co-ordinating Officer" of this network.

The network publishes a newsletter which is sent free of charge to all members (in Sweden and abroad) who have shown an active interest in the network by sending a written request to the Co-ordinating Officer. The present (1995) number of subscribers exceeds 1 300 people and organisations (including all Ministries of Education in the Nordic Countries!) which seems to confirm the need of this kind of network. In the newsletter, which is also published electronically in the Council's database, all sorts of useful information can be found, e.g. on conferences and reports, new programmes, how to use the Internet and comments from members. There can be little doubt that this newsletter has promoted the use of computers in higher education in a demonstrable and tangible way.

62 SOU 1991:2, p 268.

Dr Kjöllerström (right) in the computer lab.

The need for contact is also demonstrated by the fact that the Co-ordinating Officer receives a flood of letters and telephone calls every week with all sorts of queries and requests, often of a very practical nature, e.g. whom should I contact, what programmes could I use, or how can I be connected to the world-wide-web network.

Financed by the National Board's Faculty Development Unit the network arranged a seminar on computers in education in the UK in April 1992. 24 experienced Swedish academics were given the opportunity to study and "evaluate" the work of 13 British Centres for Computer Instruction, and they also participated in the CTI Directors' Forum at Stirling University. Their findings have been published in an Occasional Paper.[63]

63 Claes Cassel, et al. *Datorstödd utbildning och inlärning.* Occasional Paper No 2, June 1992.

48

In contrast to the British initiative with discipline oriented centres, each having a staff of 3-4 persons, the Swedish academics proposed a number of "discipline co-ordinators", based at regular university departments, and seconded to the Council for no more than half-time - it was considered essential that the co-ordinators should be (and feel themselves as) members of a department with undergraduate teaching tasks. The Council endorsed this proposal,and recommended to the Government that SEK 45 million should be set aside for this purpose over a three year period.[64]

In April 1993 the network and CITSS in Oxford (the Computer in Teaching Initiative Support Service) organised a joint workshop in Lund, Higher Education 1998 transformed by learning technology. The participants were the Directors of the various Disciplinary Centres within the British Computer Teaching Initiative and members of the Swedish Network. From the plenary sessions and the group work it became apparent that the importance of modern information technology seems to have been underestimated by university leadership, and also the perhaps amazing fact that institutionally produced teaching and learning programmes very rarely have a life past version 1.0. What lesssons could be drawn from this?

Through Professor Kjöllerström's extensive international contacts, the Network, with the Council as financial sponsor, joined the 1994 European Academic Software Award consortium. The German *Academischer Software Kooperation* (ASK), which is a partly federally funded organisation, based at the University of Karlsruhe, had been awarding a prize for the best computer programme, produced at a German university for a number of years ; this had lately been changed to an Austrian/German competition. The time was now ripe to make this contest a European one[65] with computer teaching and learning programmes competing in 15 different discipline or faculty groups.

64 *Anslagsframställning 1993/94-1995/96*: Occasional Paper No 3, p 60 ff.

There were 15 Swedish entries in the contest, two of which reached the finals, held in Heidelberg in November 1994. One programme, the IDA-programme, developed at the Royal Institute of Technology in Stockholm,[66] was selected as the winner of its group, and the second programme, the FRiDA project,[67] received a citation. Thanks to the generosity of Microsoft Sweden AB and Studentlitteratur AB, the authors of both programmes each received a travel grant of SEK 10 000 at a ceremony at the Council in January 1995.

In his response to the Chairman's congratulations, Dr Jonas Björkberg, one of the co-authors of the IDA programme, remarked that there "was no way the IDA project could have been realized by the Royal Institute alone. Thanks to the Council, however, they (the Department of Theoretical Electronics) had now proved that they were the best teaching institution (in Europe) in their field, and they had indeed placed the Royal Institue on the European educational map".

Much to the dismay of the rest of Europe, Sweden insisted that student jurors should be included in the programme. It is obviously true that a programme must meet high scientific standards (which, of course, can only be assessed by one or more experts, i.e. faculty in the field). However, if the programme gives itself out to be a learning programme, who is the best judge of its learning qualities? Obviously the learners. Consequently, the Council did not only bring 9 academic jurors to the Heidelberg finals but also 4 student jurors. However, the Council feels that the real comptence of the student jurors was not fully utilized, as

65 The Council had already suggested a special Swedish "Emile-price" for the best Swedish programme in its Estimates in June 1992. These plans were changed to participate in the European contest.

66 The programme presents a graphic and pictorial image of electromagnetic field theory. It has been developed by Dr Gunnar Petersson and partners.

67 A drill programme in French, developed by Mr André Kahlmann under the auspices of Professor Gunnel Engwall at the University of Stockholm.

they were easily overruled by a majority of conservative members of faculty.

In the 1994 European contest the award for "best programme of all" was presented to a Swiss medical programme.[68] The Council was very disappointed when, in spite of the MEDCAL[69] programme, no Swedish medical programme reached the finals: to quote Dr Göran Petersson, Co-ordinating Officer of the MEDCAL programme and a juror in the contest: "we were simply not in the same league as the British, German and Swiss competitors. But (as Professor Becher put it) we are the "Learning Council" and we have got a lot of new impulses and new ideas from this new-found haven of beauty, and, please tell them, we look forward to the 1996 contest ..."

Finally, honour where honour is due. The success of the network for computer assisted instruction would not have been possible without the enthusiastic, committed and creative work of Professor Bengt Kjöllerström. A proponent for the status and quality of undergraduate education already in the early 1970's, he saw the possibilities of information technology much before the rest of us. He did not only see this, however, he also made use of his scientific knowledge to find new practical ways to facilitate and deepen student learning, when many of us still relied on committees and commissions to stake out the future. Needless to say, his commitment to the Council has greatly exceeded a half-time secondment.

68 Raphaël Bonvin, et al. *Laennec CD-Rom*. University of Lausanne, 1994

69 Cf p 97ff

51

A Government Assignment

the Integrated Environmental Studies Programme

In the late 1980's most of the vocational programmes in universities and professional schools had some sort of environmental studies attached. In most cases, it was a voluntary course, taken at the end of the programmes. In those days most academic teachers would regard environmental studies as one of the best examples of multi-disciplinary studies in higher education, where specialists from a great number of subjects, ranging from biology and chemistry over economics to law, endeavoured to give students a view of the complex interactions of academic specialities in real life.

The 1991 Environmental Protection Act[70] changed the basis for the environmental studies programmes, however. Instead of a particular "environmental studies segment" somewhere in the degree courses, the Government decreed that **each and every** academic discipline must integrate environment issues in **all the regular programmes**.

> To make this come true is a considerably more difficult task for the institutions of higher learning than treating the environment issues as separate, isolated elements that can easily be added to existing programmes. To realise this task,

70 Cf prop. 1990/91: 90.

> a strong support is needed for the academics in the university system , e.g. in-service training, development work, and the production of textbooks. The Government therefore proposes that special resources are made available for this purpose ...[71]

This change of paradigm on the part of the Government meant an enormous change for the teachers in the institutions of higher learning. So far, they had been able to teach their old courses without paying particular heed to environment issues - "those are taken care of by the 'environmentalists' in a special course"! - was the general excuse for not changing one's own courses. All of a sudden **all** academic teachers should become involved in the environment issues - the alibi hitherto provided by the "environmentalists" was suddenly gone. It goes without saying that such a fundamental change does not occur easily in the institutions of higher learning.

Following a controversy between the Ministry and the National Board of Universities and Colleges - the Board had a fundamentally different opinion than the Ministry, and wanted to stick to the multi-disciplinary courses so far provided - the Ministry approached the Council in the middle of November 1991: would the Council accept the government views and would the Council be instrumental in the implementation of the new paradigm?

The Council was extremely hesitant. On the one hand it could be said that this issue - which had its origin in a Government decree - was completely outside the brief and interests of the Council; the Council had been established to take care of innovative ideas put forward by individual members of faculty and not to implement Government policy. On the other hand, here was a Council with good relations to faculty and a record of achievement; would it be unreasonable to ask this Council to assist in a matter of great concern to the Government?

71 Prop 1990/91: 90, p 208.

After a lengthy discussion the Council decided to accept the assignment on one condition: it should be carried out in "a council way", i.e. it must be a long-term assignment, and projects would be awarded in national competition after expert scrutiny. The Government accepted the condition, and in March 1992 the Council was formally commissioned as the responsible agent of the new paradigm.

Already in January 1992 the Council had decided to appoint a special sub-committee for the environmental studies programmes. It was decided to avoid "environmentalists" in the sub-committee and to rely on well-known academics who had shown an early interest in environment issues and who, from the basis of their own disciplines, had endeavoured to support the introduction of integrated environmental studies.

Professor *Christina Ullenius*, Member of the Council, who, as Vice-President Academic of Chalmers University of Technology had been very active in introducing environment issues in the engineering programmes at Chalmers, was the obvious Chairperson. To assist her the Council invited Mr *Svante Axelsson* of the Swedish Universities of Agricultural Sciences who had devised and directed a number of undergraduate courses in "environmental economy", a topic, which at the time, normally was found only in doctoral courses, Professor *Arne Claesson*, long-time Dean of the Faculty of Natural Sciences at the University of Umeå which had a long-established commitment to environmental issues, Ms *Gunilla Mattsson*, M.Sc. and teacher trainer at the University of Göteborg, who had produced numerous books and articles on how to make future primary and secondary school teachers interested in the environment,[72] Professor *Birgitta Odén* who, as professor of history at Lund University, had initiated the Lund Environmental Programme almost two decades ago, and Professor *Olof Wärneryd*.[73] Social and Economic

72. Ms Mattsson is also one of the co-authors of the Council's European review of environmental studies.

Geography at Lund University, who had accepted to advise the Council's review of European trends in environmental studies already in June 1990.[74]

The Swedish Association of Unions of Swedish Students nominated Mr *Johan Örnskär*, student of the history of ideas at Stockholm University and later student of journalism at Göteborg University, as their representative.

In September 1992 Ambassador *Bo Kjellén*, Chief Negotiator for Sweden in International Environmental Affairs, joined the sub-committee. Incidentally, it is interesting to note that the intentions of the Swedish Government can also be recognised in the chapter on education in Agenda 21, as part of the Rio de Janeiro Treaty.

Professor *Reinhold Castensson*, University of Linköping,[75] who had successfully directed a Council project on Problem Based Learning in Environmental Studies, and who had edited the Council's international review of environmental studies, was appointed Co-ordinator and Chief Executive Officer. Since 1st July 1993 he has been seconded to the Council on a half-time basis.

The Council decided to delegate executive powers to the sub-committee.

In the Council's Annual Report 1992/93, the Chairperson of the sub-committee, Professor Christina Ullenius states:

> Thus, the Council was not unprepared for this new assignment. However, I should like to point out a sharp difference with the original Council programme

73 When Professor Wärneryd left the sub-committee on his retirement in 1993, he was succeeded by Professor *Birgit Kriström*, Economy, the Swedish University of Agricultural Sciences, who as Project Director had implemented an environmental studies programme at the Stockholm School of Economics.

74 Reinhold Castensson, (ed): *Miljöutbildning i Frankrike, Nederländerna, Storbritannien och Tyskland*. Occasional Papers No 1, June 1992.

75 Professor Castensson is currently attached to the Nordic School of Planning.

> awarding projects to develop the quality and pedagogical renewal of undergraduate education: while the Council seeks to give grants to the interested and committed academic teacher (or group of teachers) - regardless of management and system preferences - in our original programme, **we now sought the active support of institutional leadership**. Also, while the Council in the original programme left it with the individual project director to design the proposed project, which, of course, was then carefully scrutinised by the external experts, the Council decided to **formulate the environmental studies programme in a dialogue with the institutions concerned**.[76]

In the 1991 Environmental Protection Act Parliament had carefully marked its priorities: technology, administrative and economic professions, and teacher training.

The sub-committee which had SEK 8 million at its disposal,[77] considered this first year as a test period, and therefore added a secondary criterion: it wanted different kinds of institutions to participate: old/new, big/small, and specialised/non-specialised. Invitations to participate in the programme were therefore sent very selectively to Presidents who, if they were interested, were asked to name a Project Director and a Reference Group (which, incidentally, must have student members) for a continued dialogue with the Council. As it were, most Presidents approached were interested, and the first list of funded projects comprises:

(1) a big, old university

Lund University

Faculties of economics, law and social science

(2) a new university of moderate size

Linköping University

In-service training within the Faculties of Economics, Social Science and Teacher Training

76 *Annual Report 1992/93*. Occasional Paper No 9, April 1994, p 32.

77 Parliament had set aside SEK 4 million each for the fiscal years 1991/92 and 1992/93; as the funds for 1992/92 had not been used, the Council had two years' grants at its disposal.

(3) specialised professional schools

Chalmers University of Technology
Section of Mechanical and Vehicular Engineering

Stockholm School of Economics
BA and MBA programmes

(4) University Colleges (raised to this status in 1977)

Kalmar University College
Teacher Training

Sundsvall/Härnosand University College[78]
Two-year Engineering Programmes

Ostersund University College[79]
Professional Administrators Programme

When the projects were summed up a year later[80] certain tendencies could be discerned.

(1) Professional schools (Chalmers University of Technology, Stockholm School of Economics) which could concentrate on one professional programme were more successful than universities and university colleges that had chosen to spread their efforts on a multitude of programmes.

(2) The institution among the universities and university colleges that concentrated its efforts on one very well defined programme (Ostersund) was more successful that the others.

(3) Big organisations, such as universities (also new universities), have such an intricate pattern of consultation that only long-term projects should be undertaken. One year projects are only likely to create a good deal of frustration among the teaching staff.

78 Now merged with Ostersund University College to Mid Sweden University College.

79 Now merged with Sundsvall/Härnösand University College to Mid Sweden University College.

80 In September 1993. It is obvious that this is too short a period to give a final verdict of the results; however, this time span (1 st July 1991 to 1 st October 1993) was part of the original brief given in the 1991 Environmental Protection Act.

These preliminary findings were reported to the Council and also presented at the European Conference on Environmental Studies Programmes, organised jointly by the Council and NORDPLAN[81] in October 1994.[82] The conference, which also saw the birth of the Association of University Departments of Environmental Sciences in Europe (AUDES) had convened 90 scholars from 15 countries, and signifies the great importance the Council attaches to international co-operation. The keynote address by Professor Hans van Ginkel, President of the University of Utrecht, has been published by the Council as an Occasional Paper.[83] The complete proceedings of the conference have been published electronically, and are now available at the Council's database.[84]

Since 1st July 1992 the sub-committee has funded environmental studies projects at almost every university, professional school and university college in the country, having the lessons learnt from the pilot projects in mind, e.g. concentrating on (smaller and) specialised projects rather than trying to involve several Faculties at the same time. By tradition new projects are accepted at a "Dialogue Seminar" where not only the sub-committee but also experienced Project Directors have an opportunity to suggest amendments to new projects under discussion, and where incoming Project Directors are given the opportunity to consult colleagues about obstacles and difficulties experienced at other institutions.

81 Nordic School of Planning.

82 Reinhold Castensson (ed). *Integrated Environmental Education at Swedish Universities*, Occasional Paper No 13, October 1994.

83 Hans van Ginkel. *Environmental Education - coming of age*. Occasional Paper No 17, June 1995.

84 Reinhold Castensson (ed). *Proceedings of the International Conference on the Renewal of Environmental Education in Europe, October 19-20 1994*. INTERNET. URL: gopher://gopher.ub2.lu.se:70/11/miljo/grunduttb/proceedings

Like the 1989 Commission on Higher Education,[85] the Council has great sympathy for Problem Based Learning - not for doctrinaire reasons, but simply because so many well-funded applications have proposed this method of making the students take greater responsibility for their own learning. It does not seem to be generally recognised, though, that - besides the well-known Health University in Linköping - the Council's environmental studies projects offer one of the few practical and well-tried examples of Problem Based Learning.

Although the 1991 Environmental Protection Act mentions text-books as one of the aims of projects within environmental studies, it was quite clear to the sub-committee that the only way of making this quickly expanding knowledge area manageable for students and faculty was to involve the university libraries in a way in which undergraduate education - as opposed to graduate education, doctoral studies and research activities - had not been involved for decades.[86] Hence, parallel to the faculty and disciplinary projects, the sub-committee commissioned a series of library projects:

- the University Library of Lund should make arrangements for a distributed database, based on its own transactions and those of the University Library of Linköping, and also provide a discussion forum for project directors and students, seeking information,[87]
- the University Library of Linköping should provide specialised in-service training for librarians at professional schools and univer-

85 SOU 1992:1, pp 143 ff.

86 At a conference with the University Librarians, the Secretary of the Council admitted that as an undergraduate (in the middle and end of the 1950's) he had only one reason to visit the University Library, viz to find a textbook out of print and not available in the second-hand book shops. However, fellow students had hidden the only copy so well that the librarians could not find it!

87 An account of the project by Professor *Göran Gellerstam*, Librarian, University of Lund, can be found in the Council's *Annual Report 1993/94*, Occasional Paper No 15, pp 26-27.

sity colleges as far as information retrieval in the field of environmental studies was concerned,

- the Library of each participating professional school or university college was given a special two year grant to make library services (including searches in the Council's and affiliated databases) free for faculty and students involved in the environmental studies programmes.

The importance of these library projects, and their transfer to regular undergraduate education programmes has been referred to on several occasions in the world of librarians. In spite of its obvious relevance for the planning of university infrastructure in the future, it has, however, rarely been mentioned in the general discussion of the renewal of undergraduate education. For the fiscal year 1995/96 the Council has therefore set aside special funds for an evaluation of the role of libraries in Problem Based Instruction in general and Environmental Studies Programmes in particular.

So far the Council has spent SEK 16 million[88] on the implementation of the 1991 Act. Do the results justify the expense?

To answer this question the Council has reserved funds for an Nordic evaluation of the various environmental studies projects for the fiscal year 1995/96.[89] All evidence so far, including faculty's reports and student evaluations, seem to indicate that a new approach to environmental studies is making progress within the system of higher learning. However, a change of paradigms does not come easily, and it certainly takes time.

88 The Government has continued to allocate SEK 4 million per year to make new projects possible.

89 Professor *Anders Rapp* (Lund University), chairman, Professor *Asbjörn Aase* (University of Trondheim) and Mr *Esa-Pekka Kaskitalo* (Helsinki). Mr Kaskitalo has been nominated by the Association of Swedish Unions of Students.

Evaluation

The first formal evaluation of the Council's activites was, in fact, made after only six months by the Parliamentary Select Committee on Education when recommending Parliament to vote more funding to the Council in spite of an already taken decision.[90]

Having had the possiblity to follow the Council for some 15 months, 1989 Commission on Higher Education states in its final report:

> According to our judgement it may already be regarded as an established fact that the concept of a council for undergraduate education has convincing force. The present council has lived up to expectations.[91]

The Commission continues to propose that the Council should be given status as an independent Council directly under the Ministry, with the same status and organisation as the research councils (with the Chairman and five Members appointed by the Government in line with the selection procedures used by the research councils, with an additional three members representing the students, also appointed by the Government). The Council should have a funding corresponding to one percent of the total state undergraduate grant (c SEK 50 million).[92]

90 Cf. pp 37-38 above.
91 SOU 1992:1, p 257.
92 SOU 1992:1, pp 257-258.

However, the 1991 General Election had returned a non-socialist minority government, and the new Minister of Education, Mr *Per Unckel* (conservative), was not prepared to take the Commission's views at face value. In March 1993 he was to present a three year plan for the development of undergraduate edcuation to Parliament, and he therefore insisted on the Council being evaluated by an independent evaluator - after all it had only been given a three year trial period by Parliament. In view of the Council's international interests and activities, it was decided to seek an evaluator from outside Sweden.

To the great satisfaction of the Ministry and the Council, Professor *Tony Becher*, University of Sussex, U.K., accepted the assignment, partly because of his curiosity about this new concept of an undergraduate education council, hitherto unheard of. Tony Becher worked very long days that included travel to five universities, one professional school and one new University College, and interviews with more than 60 university leaders and faculty in October 1992, and the evaluation was handed over to the Minister in November 1992.

On the whole, the evaluation is positive

> To those who are not in a position to read any further, it should be said clearly at this point that the overall judgement on the Council's work to date is unequivocally a favourable one. For an agency which has as yet existed only a relatively short time, it has achieved a remarkable amount, and has acquired a generally very positive image. There could conceivably be reasons why Parliament might decide not to renew its existence; but its own performance to date could not with any justice be one of them.[93]

The 55 page Report has been of great value to the Council. The overall positive verdict does not prevent Professor Becher from - very rightly, as the Council has seen it[94] - questioning many of the Council's policies.

93 *The Learning Council; An evaluation report on the work of the Council for the Renewal of Undergraduate Education*: Utbildningsdepartmentet, Ds 1992:120, Introduction p. 12.

94 To use Professor Martin Trow's interesting distinction between **evaluative**

In a special chapter, titled **Problem areas,** he identifies some issues the Council should develop further

One was the problem of ensuring that the Council made itself known to its constituents, another the difficulty of eliciting grant proposals from the smaller, more specialised institutions; another the challenge of reducing the extent to which the application process might discourage those who are relatively inexperienced in the business of grant-getting.[95]

On the following pages professor Becher discusses these issues and comes with suggestions, e.g. make better use of the journal *Universitetsläraren*,[96] ask the Society of Living Pedagogues to give a hand to those who are not well versed in grant-getting, and make the more sophisticated items in the application procedure optional rather than obligatory.

In spite of following Tony Becher's recommendations with regular advertisements in *Universitetsläraren* (and various other measures), the problem of making itself known to the constituents remains one of the biggest problems of the Council. An anecdote from the evaluation period may be a case in point. One of the referees picked out by Professor Becher for a short interview, was asked - with other referees and grantees - to lunch by her President to have an opportunity to meet the evaluator. She called the President back to decline the luncheon date, as she had never heard about an undergraudate education council. The President's Office then asked the Secretary to call this particular referee to clarify matters. When the Secretary had thanked her for and reminded her of her written comments about an application, sent to

and supportive external evaluation. Tony Becher's evaluation of the Council is the archetype of supportive evaluation, cf Martin Trow. *Academic Reviews and the Culture of Excellence*: Kanslersämbetet, Skriftserie 1994:1, pp 21-22.

95 *The Learning Council; An evaluation report on the work of the Council for the Renewal of Undergraduate Education*: Utbildningsdepartementet, Ds 1992:120, p 39

96 Published bi-weekly by the Association of University Teachers.

the Council only a few months earlier, she replied: "Oh yes, but that was last term. This term I am doing full-time research"!

Faculty seem to have an enviable skill in screening the information they receive - probably a necessary thing in the present information society. It does not help a new and small council, though. As Tony Becher notes himself: it may well be that the second or third mention of the Council acted as a trigger for action in the way the first did not.[97]

Professor Becher has other criticisms:

> The conduct of project evaluation is one of the rare issues where the Council seems so far to have generated more confusion that enlightenment.[98]

Unfortunately, this was true. To the Council's disadvanage, as it were, it had invited Professor Becher to participate in a seminar with all then Project Directors on "Project Evaluation". During two days we managed to demonstrate what Tony Becher described as:

> the Council's otherwise commendable strategy of trusting its grantees to take a responsible attitude seemed in this instance to have been taken too far. It was not altogether unfair of one of the respondents to remark that "the Council hadn't really worked out what it wanted from Lejondal - it seems to have left things to providence".[99]

This was quite true - the Council had no clearcut strategy of its own, and relied on colleagues to find one. However, the Council learnt a lot from the Lejondal conference and from Tony Becher's biting wording.

The perhaps most significant warning from Professor Becher concerns the too wide-spread activities of the Council. He writes:

> The Council would also do well to avoid involvement in more than a limited number of activities which are outside its remit, or tangential to its main concerns. It might legitimately, however, offer to contribute on the basis of its relevant experience to date, to the review currently carried out by the Office

97 *The Learning Council* etc p 39.
98 *ibid* p 31.
99 *ibid* p 31

> of the Chancellor of procedures for quality assurance in Swedish universities and colleges. As one Council member observed, it could be "a good speaking partner in the debate"; another senior academic saw it as "a good source of thought and advice". Nontheless, as a third respondent emphasised "it should not become part of the Chancellor's Office - it must definitely remain within the research council network".[100]

Some final remarks may be relevant. First, that the Becher Report resulted in an 80 page memo from the Secretariat to the Council, and that the December 1992 and January 1993 meetings of the Council were totally designated to a thorough discussion of the evaluation. In most cases, the Council accepted the suggestions made; in a few cases, e.g. concerning the need to be familiar with international developments in the field, the Council did not retreat from its former policies.[101]

Second, two issues that had been very much discussed within the Council found their solution through the Becher evaluation. First, the question whether - in contrast to the research world - the reinvention of the wheel was **permissible**, e.g. the introduction of teaching principles that had already been tried and approved of in other institutions to a new institution. Professor Becher makes his opinion very clear in the Report:

> The situation is different for interpretive research in the humanities, where the same topic tackled by different researchers may produce quite distinct results, because the nature of the knowledge here is reiterative and not contextually determined. A clear case can be made that educational development is more like humanistic than scientific research. Teachers **need** to reinvent the wheel as part of their necessary learning process - and may well come up as a result with a different design of a wheel. Very few educational innovations - and certainly few that are far-reaching in character - can simply be picked up and

100 *Ibid* pp 50-51.

101 The Council has always underlined the international nature of undergraduate education, cf the very early ruling that at least one reviewer of Council projects must be a non-Swedish academic.

> used in a more and less mechanical way outside the place where they originated.[102]

There was also the question whether the Council should point to certain areas in which it would specially welcome project applications - in particular the Chairman and the Secretary had been indicating examinations as an area needing radical change in Sweden. Drawing on his experience Professor Becher is again very distinct and states:

> A number of respondents discussed the merits of identifying certain chosen areas as specially deserving support. "There is a need for the Council to sharpen its criteria and to concentrate on particular themes"; "It should identify high profile areas needing development and direct money to them"; "The Council should indicate research agendas it will support".
>
> ...
>
> In the evaluator's experience, there is a further reason for hesitation. Some of the U.K. research councils have from time to time adopted the same strategy. It is noticeable that in the main it attracts research mercenaries - people whose interest in gaining grant awards is stronger than their commitment to exploring the topic in question. The result is almost invariably work of poor quality.[103]

Professor Becher concludes his evaluation report as follows:

> As was noted in Section 1, this evaluation depended very largely on the views of those with a direct working knowledge of the Council. It has sought, through their testimony, to draw attention to the negative as well as the positive aspects of the Council's work. The latter greatly outweigh the former. The final verdict must be that, in its first two years at least, it has established itself as an incontestable success.[104]

Thus, the verdict of the Parliamentary Select Committe on Education and the 1989 Commission on Higher Education was borne out by an independent evaluator.

102 *ibid* p. 30.
103 *ibid* p. 44.
104 *ibid* p. 51.

A Sister Council

or is it a Daughter Council - is born in Australia

In the complex system of higher learning it is very seldom possible to demonstrate clear cases of causal relation. So many persons and events may have influenced a process that it cannot be stated, beyond reasonable doubt, that x led to y. However, the birth of our Sister Council, the Committee for the Advancement of University Teaching (CAUT) in Australia is a prominent exception. The concept of an academic council for undergraduate education, which had been proposed by the Westling Commssion, was copied and introduced in Australia as can be seen from the following letter from Mr Michael Gallagher of the Department of Employment, Education and Training to the Secretary

> Thank you for sending me a copy of the Council's Annual Report 1991/92. I was very impressed by the Swedish initiative on my visit last year and I am pleased to say I have now had the concept adopted in Australia.[105]

In hindsight, it seems only natural that Australia would be the first country to follow the Swedish example. Even if Australian faculty are not as strongly opposed to teaching as their Swedish colleagues (cf the table

105 Department of Employment, Education and Training, Canberra ACT 2601. MG:CEY:045, 12th October 1992.

The Secretary with the Chairman of CAUT, Dr Don Anderson, at a seminar in Canberra in February 1993.

on p 24), many of the problems facing Australian higher education are the same as those facing Sweden, both countries being scarcely populated with a concentration of people to a few major cities, and both on the periphery of the modern world. It also goes without saying that the Australian enterprise made the Council very proud; there were no longer only a handful of people in Sweden who believed in a council for undergraduate education - now a **continent** had accepted the idea.

It must be admitted, though, that Australia has a longer tradition of taking special interest in the quality of undergraduate teaching. Most universities have, in comparison to Sweden, at least, large teaching and staff development departments, the directors of which normally have professorial rank.[106] The influence of these departments can be seen e.g. in reviews of Swedish Council applications, carried out by Australian

106 It is interesting to note that the University of Canberra, wanting to enhance undergraduate teaching, selected Professor Ingrid Moses, Director of the Department of Development at University of Sidney, as the new Pro-Vice-Chancellor. This would certainly not have occurred in Sweden.

Committee for the
Advancement of University Teaching

academics. Such reviews, also from discipline experts, contain references to recent educational research to a much larger extent than is normally the case with European or North American reviews, which seems to indicate that also the "ordinary" professors have made it a habit to devote at least some attention to periodicals catering for academic teaching.

To facilitate future co-operation the Secretary visited Australia in February 1993 and had a series of fruitful meetings with the Chairman of CAUT, Professor Don Anderson, Members, the Secretariat and Australian academics interested in enhancing the quality of university teaching. Professor Anderson paid a similar visit to Sweden in March 1994 and met with key persons in the system of higher education, including visits to some of the Council's projects.

From the beginning it was clear that much could be gained by mutual co-operation, e.g. sharing results of development projects (including materials, whenever suitable), finding qualified experts for reviews of applications, and not least, developing joint clearing-houses for teaching materials. Both Councils' databases provide easy access to the other, and when the development of clearing-houses accelerates in the autumn of 1995, Australian and Swedish faculty can share opinions and impressions of teaching materials in a number of subject areas.[107] There will be no

107 Australia is setting up clearing-houses in the fields of the Humanities, Law,

public access to at least the Swedish clearing-houses; the information will be available to members of co-operating institutions only.

It should also be noted that in spring 1995, when the existence of the Swedish Council was questioned by the new Goverment, our Australian Sister Council was very active in supporting the undergraduate education council idea, including a letter to the Swedish Minister of Education.

Engineering, Health Care and Modern Languages, and Sweden in Medicine and Health Care, Physics, and Modern Languages.

The Council is made permanent

with the status of a National Agency directly under the Ministry of Education confirmed, and again sees its budget doubled

Early in 1991 it was evident that the National Board of Universities and Colleges was an ailing national agency. Too many reorganisations with personnell redundancies as a consequence, and dubious dismissal procedures during the past few years, had drained staff morale. It was more or less expected that the new non-socialist coalition government, formed in October 1991, would close it down, and the news, given to the staff at the beginning of December 1991 by the then Deputy Minister, was more of a confirmation of an established fact than a sudden shock.

At the same time it was obvious that there was a need of some co-ordination at the national level. The original proposal of the Government therefore comprised two national agencies replacing the National Board: a Secretariat for the Evaluation of Universities and Colleges, and a "Service Organisation" catering for e.g. the University Entrance Test, applications from students to the various institutions, and legal advice, particularly to the new and smaller institutions.

Unfortunately, the Government was hard pressed for time as it wanted the change to take place from 1st July 1992. In all fairness it could not be said that the the analysis of tasks at the national level,

particularly as far as "the service organisation" was concerned, was of the highest standards. In fact, *Verket for Högskoleservice*[108] found itself straddled with both the exercise of public authority on behalf of the Ministry (and through its international department, on behalf of the European Union), and the performance of service functions, for which the universities should be charged an appropriate fee. From the start it was therefore evident that this new agency must be restructured and given a new brief. Under the leadership of the Director General, Ms *Anitra Steen*, a study group, including university leadership, outlined a new structure, making a clear distinction between the "service function", which could be handled by an organisation under the auspices of the Swedish CVCP, and the "public authority" function, which could and should be entrusted to a reformed national agency.

At the beginning it had been the intention of the Government to include the two small councils that had been attached to the National Board, the *Council for Studies in Higher Education*, and the *Council for the Renewal of Undergraduate Education*, as autonomous parts of the "service organisation". However, bearing the proposal of the 1989 Commission on Higher Learning in mind, that the Council for the Renewal of Undergraduate Education should be organised after the pattern of the research councils, and consequently be a national agency in its own right,[109] the Government decided to follow the advice of the Westling Commission in May 1992. From 1st of July 1992 the Council was therefore set up as a national agency in its own right.

It goes without saying that this new status of the Council made a lot of difference in the eyes of the universitiy teaching staff. Not only in academic rhetoric but also in real life were research and teaching two aspects of academic life treated equally. It is true that our Council only

108 In English literally The National Agency for University Services.

109 SOU 1992:1 p 258. Cf also the motions in Parliament over the years from the Centre Party proposing that the Council should be an antonomous agency.

had about a tenth of what e.g. the Council for Research in the Humanties and Social Sciences had at their disposal, but this is not the point. The point is that this relatively small Council for Undergraduate Education was treated as an equal partner to the research councils - a, perhaps fine, but nevertheless very important, psychological point, well understood by the Westling Commission but hitherto not by the politicians.

In his Bill *Higher Education for Enhanced Competence*,[110] presented in March 1993, the then Minister of Education and Science, Mr *Per Unckel*, refers to the positive evaluation of the Council by Professor *Tony Becher*. He also observes that the Council had been given the status as a national agency directly under the Ministry from 1st July 1992, but at the same time, he points out that the decision was of a temporary nature, and caused more by the winding up the National Board of Universities and Colleges than a wish to see an autonomous undergraduate council. However, the Minister goes on to state:

> I propose that the Council for the Renewal of Undergraduate Education is now established as an autonomous state agency. This indicates the importance the Government attaches to the quality and pedagogy of the undergraduate education.[111]

The Council's directives were confirmed and its budget doubled.

This was, of course, a moment of great joy. The Council had been instituted by a social-democrat Government, given a dimunitive budget and a trial period of three years. The Parliament Select Committee had accepted the Government's proposal but without enthusiasm: the Liberal party had even recorded their reservations. Seeing the interest in the Council by faculty, the Select Committe had, however, on its own initiative recommended Parliament that the Council's budget should be doubled.

110 Prop 1992/93:169.
111 Prop 1992/93: 169 p 223.

7:1

Nearly three years later, after an evaluation by one of the world's leading experts in the field, the permanency of the Council is proposed by a non-socialist Government, and the Council's budget is again doubled - three years running! At this time an unanimous Select Committee endorsed the Minister's proposals.[112] And the Council had got a sister in Australia.

The main part of the increased funding of the Council (SEK 15 million) was designed to increase the degree of "internationalisation" of the **teaching** part of the Swedish system of higher education.[113] As this has sometimes been described as a temporary measure, come about at the whim of a Minister, we find it important to underline that the Council had pointed to the need of more travel grants for academics mostly concerned with undergraduate education already in its first Annual Report (1990/1991):

> Going through this year's applications for funding I noticed that Swedish academics without access to research money come very close to being dangerously provincial. The knowledge of curricula and teaching methods of sister departments outside Sweden is virtually nonexistent! It seems evident that the system of higher education - and the Council - should be supporting academic teachers' travel at a much higher level than at present.[114]

This plea was reiterated in the Council's Estimate of Expenditure for the period 1993/94- 1995/96:

> Students of all times have endeavoured to spend part of their studies at a university abroad. Lately, an increasing number of students have chosen to complete their studies abroad. Traditionally this has been regarded as something

112 1992/93:UbU 14 pp 135 ff.

113 It should be noted that the research part of academic life in Sweden is highly international, also compared to the rest of the world, cf figure 66 in Ernest L. Boyer, Philip G Altbach & Mary Jean Whitelaw, *The Academic Profession. An international perspective*, Princeton ,1994: The Carnegie Foundation for the Advancement of Teaching.

114 The Chairman's address in *Annual Report 1990/1991*: The Council for the Renewal of Undergraduate Education, 1991.

> outside the regular degree courses (perhaps, even, as an extravagance) which, of course, could not be recognized in the native country. However, the idea of the ERASMUS-programme is that studies abroad should be taken into account also for degree courses.
>
> Already the possibility that studies at a another university in Sweden should be recognized as part of a degree course has led to heated discussions. It is obvious that the idea to have studies at a foreign university recognized as part of a degree course is even more difficult to accept. The respect for the office of the academic examiner therefore presupposes that agreements on the recognition of studies at a university abroad are based on the knowledge of and confidence in the competence of a certain institution. This can only by reached by personal contacts and professional respect.
>
> If Sweden is serious in wanting an integration with European universities, it is important that teachers from universities abroad are given the opportunity to become reassured of the quality of Swedish higher education, and, vice versa, that Swedish university teachers have the possibility to become personally conviced that courses at institutions abroad have a quality corresponding to that of Swedish universities. This presupposes an exchange of teachers in undergraduate education at quite another level than can be expected within the ERASMUS-programme.[115]

The Council therefore decided to use this new funding to promote an extensive teacher exchange programme which is described on p 87 ff.

However, the Government Bill included yet another task for the Council under the Equality of Sexes Programme, introduced by the Government. In line with the proposals of the JÄST-Committee,[116] the Council was charged with ensuring the "permanent increase of female students in programmes of technology and natural sciences", cf p 79 ff.

Thus, the Council was confirmed as an established autonomous academic agency with additional funds both for its "basic" mission of supporting undergraduate education by the funding of experimental

115 *Anslagsframställning 1993/94-1995/96*: Occasional papers No 3, June 1992, pp 65-66.

116 *Jämställdhet i högre utbildning och forskning*, Ds 1992:119: Utbildningsdepartementet.

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projects, and information about developments in Sweden and abroad, and for two special Government assignements, the integrated environmental studies programme, and the new task of recruiting more female students to technology and natural sciences.

The Owl is ready to fly. Photo: Bengt Olof Olsson/Bildhuset.

The Second Government Assignment

Within the Equality beteen Sexes Programme

In June 1992 the new Minister of Education, Mr *Per Unckel*, decided to appoint a special Committee to look into the problems of Equality between Sexes in higher education.[117]

In December 1992 the Chairman and the Secretary were called to a meeting with the Chairman of the *JÄST*-Committee, Ms *Margitta Edgren*, MP (liberal). We were told that the Council would be involved in the Committee's proposals, and that the Committee would propose that c SEK 20 million should be put to the Council's disposal over a three year period "for promoting Equality between Sexes".[118] The Committee saw a parallel between such an assignment and the assignment of promoting integrated environmental studies, which had earlier been accepted by the Council.

117 The JÄST-Committee. A previous study *För att vara tjej är hon riktigt duktig*. Ds 1992:30; Utbildningsdepartementet, had given a dark picture - very little had been achieved in the sector of higher education. The new task force - the JÄST-Committee - was required to come up with suggestions to be included in the 1993 Bill of Higher Education.

118 *Jämställdhet i Högre Utbildning och Forskning*. Ds 1992:119; Utbildningsdepartementet, p 40.

There are obviously some difficulties with the parallel, and the Council also pointed out that such an assignment would be even further from the Council's original brief than the integrated environmental studies programme, even if one accepted the Committee's argument that equality between sexes would be a measure of educational quality. The Council had no special expertise in this area and had no easy means of aquiring an internationally acceptable platform to work from - in contrast to integrating environmental studies in degree courses. On behalf of the Council we therefore declined the offer.

However, Ms *Edgren*, obviously having more confidence in the Council's possibilities than the Council itself, was adamant; if the Minister decided to let the Council continue - we were, after all, on a three year trial period - an assignment would be forthcoming anyway. She also underlined that this was not a short-term commitment as the Committee proposed a funding guarantee for the next three fiscal years.

As mentioned above an assignment did indeed turn up in the 1993 Higher Education Bill. However, the Minister had re-phrased the assignment and given it a form more readily acceptable to the Council:

> The Council should initiate changes in contents and methods in the technical and natural sciences undergraduate programmes in order to permanently increase the recruitment of female students to these programmes.[119]

It is obvious that the Council had to abide the Government's specification of tasks. However, it should be recalled that the Government had created a Council that should - in close cooperation with faculty - use new ways to enhance the quality of undergraduate education. As legislation and bureaucratic measures had shown themselves fairly ineffective in promoting equality between sexes, it would not be unreasonable to test out the Council's aptitude, particularly as it had demonstrated that it could handle at least one Government assignment without letting this secondary duty encroach on its principal mission.

119 Prop 1992/93: 169, p 224.

There were a couple of new aspects, though. First, there were several schools of thought amongst the proponents of the programme, more often than not at loggerheads with each other, and, for obvious reasons, the Council had to avoid being seen to give prominence to one rather than the other. Second, the Programme, seeking to achieve a fundamental but not always by the academic community accepted change, made delegation to a specialised subcommittee - as had been the case with environmental studies programme - a risky way out, as it might be seen as either a belittlement of the issue or as the adoption of a particular stance in an academic feud.

In contrast to the handling of the assignment to integrate environmental studies in the regular undergraduate programmes, the Council therefore decided that the Programme should be handled by the Council *in pleno*. Academically, this meant that the Council would build on the academic experience and common sense of the Members rather than listening to the opinion of the established international expertise in the field. As it was evident that any changes in the academic structure of courses must have the consent and support of university leadership, the Council also decided to work "top-down", bringing in Presidents and Steering Committees in a way similar to the Environmental Studies Programme - in contrast to the primary task of the Council of supporting the initiatives of individual academic teachers.

It should be noted, moreover, that when it comes to technology and natural sciences there is a demographic problem as well as an equality issue: with 18 000 places at the universities and university colleges in technology and the natural sciences, and only 17 000 secondary school students taking programmes that would give access to technology and natural science, Sweden has quite a predicament. On top of this, Mr *Unckel* had indicated that a new grants system would make it more profitable for institutions to find "good students" for their various programmes than to accept anyone that met the minimum entrance qualifications. It had been pointed out by successive Governments that if Sweden wanted to remain one of the developed industrialized

countries of the world, somehow more female talent had to be drawn to technology and the natural sciences.

Although the Council would maintain that the critical period - when girls tend to drop programmes geared to technology and natural sciences - is to be found during the school years, particularly in the upper primary school - it is arguable that a swing in girls' interest from becoming doctors and veterinaries to becoming professional engineers or natural scientists might be achieved by presenting more stimulating undergraduate programmes in engineering and the natural sciences. A thorough revision of the current courses - not without criticism also by male students - might have a favourable effect on the interest, and thus recruitment, of female students. The Government had given the Council a tall order; but it would certainly do its very best to achieve the prescribed results.

The Council had already funded two projects with a direct relevance for this new situation in the first regular application round;[120]

- *Kvinnor i matematiken*[121] at Stockholm University with Professor Calle Jacobsson, the Director of Studies of the Department of Mathematics, as Project Director;
- *Han och hon i ingenjörsutbildningen*[122] at the Technical University of Luleå, with Dr Gerd Brandell, Head of the Department of Mathematics, as Project Director.

and it could now draw on the experience from these projects. Furthermore, the Council had commissioned Professors Philp Brenner, Chalmers University of Technology, and Calle Jacobsson, Stockholm University , to review innovative and interesting projects in mathematics in

120 It should be pointed out that these projects were funded not because they dealt with an issue of great concern, but simply because they were, also from an international perspective, very good projects.

121 Women in Mathematics.

122 He and She in Engineering Courses.

Europe,[123] which was another source of information on how other countries were trying to recruit new talent to the basic core of technology and the natural sciences.

The Council decided that the project money (as usual) should be sought in national competition, that there would be three different "classes" (degree course in computer engineering,[124] and the natural sciences, and diploma courses in (several kinds of) engineering), and that one, or at the most, two projects would be accepted in each "class". All projects must be endorsed by the President of the institution and must include a thorough revision of the complete degree programme; minor adjustments would not be supported. The projects would last three years and have the following time-table

end of October 1993 - June 1994	restructuring present programmes.
August 1994 - June 1995	detailed planning of year one, and in-service training of teachers participating in year one.
Autumn term 1995	Pilot groups accepted for the new programme.
August 1995 - June1996	Detailed planning of year two and in-service training of teachers participating in year two.

The Council's Programme was launched at a conference in Lund in September 1993. All universities, professional schools and university colleges offering programmes in the three "classes" were invited. The

123 Philip Brenner & Calle Jacobsson. *På jakt efter en främmande fågel - Innovativ matematikundervisning i Europa*: Occasional Papers No 10, June 1994.

124 When degree courses in computer engineering were first introduced the proportion female students was fairly high; in later years, however, computer engineering had become a typical male dominated programme with only 1-2 % female students. It would appear that the structure of the studies was more of an obstacle to female students than (perceived) work conditions.

date had been chosen to coincide with the ending of meeting of the Swedish CVCP to facilitate the presence of Presidents.
At the beginning of the conference demiographic data over the choice of programmes by students in Swedish secondary schools was presented together with data collected by *Ungdomsbarometern*[125] on "favourite professions" among students in their final year in Swedish secondary schools. This, no doubt, shocked a majority of the audience: the preferences of today's students bear little resemblance to those of the students of yeasterday and academic teachers of today; scientist are way down and chefs and hair-dressers top the list.

A girl in her final year in a master of engineering course gave her verdict on the current structure of the programmes: too many "male" problems, obviously devised in the garage, to solve, too little group work, and mathematics not being applied at all, but cut into pieces from some "heavenly" perspective. She wanted female networks, including role models from the profession who could act as mentors, and, of course, more female teachers!

The Council had decided to play down the Equality between Sexes perspective and concentrate on the "rational" arguments for the recruitment of more female students. The message was terse: from the demiographic data available, it was obvious that all institutions would have to revise their current programmes, particularly if the new grants system were to come into force[126]. In national competition five or six institutions would be awarded guaranteed grants over three years of SEK 2-4 million to assist them when revising their curricula which, incidentally, must not look less respectable in the eyes of male students. Under no circumstances must a new programme be seen as an "easy"

125 An organisation presenting the interest and choices of careers of school-leavers on the basis of an annual questionnaire.

126 At the conference one or two institutions admitted that the entrance qualifications of their students were already going down, and that they were worried about their possibilities of maintaining present standards.

programme or a "female programme"; as becomes an Equality between Sexes Programme it should be as tempting for male students.

The Council would be open for (sketch) applications until the beginning of November 1993. As was the case with the Integrated Environmental Studies Programme, the Council reserved the right to enter into a dialogue with the applicants in order to work out jointly acceptable programmes.

Literally every university, professional school or university college offering any of the programmes under review submitted applications for funding a "change programme" - several institutions had even two or more applications, all endorsed by their respective Presidents. At a meeting at the end of November 1993 the Council decided to select the following five projects, all of which were given a three year multi-million kronor contract.

Table 1

Programme	*Programme Director*	*Institution*
Master of Engineering (computer science)	Prof Ingemar Ingemarsson	Linköping University
	Prof Bertil Svensson	Chalmers University of Technology
Bachelor of Science	Prof Carl-Axel Sjöblom	Göteborg University
Master of Science	Prof Calle Jacobsson	Stockholm University
Diploma courses in Engineering	Mr Bengt Eriksson	University College of Karlstad

The five Project Directors have given a short outline of their particular project in the Council's Annual Report 1993/94 pp 37-47.[127]

The first test of the new programmes would be the admission data for the autumn term of 1995. In our view the results are a stunning success, cf table 2.

127 *Annual Report 1993/94*: Occasional Paper No 14, April 1995.

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Table 2

Institution	*Programme*	*Total No of places*	*Female Students*	*Percentage of female students*
Chalmers University of Technology	D++	108	16	15
Linköping University	IT	38	15	40
Göteborg University	Project	36	19	53
Stockholm University	Project	39	18	46

It is true that the admission data at the University College of Karlstad do not show the same (incredulous) figures of new female students, cf. table 3.

Table 3

Programme	*Total No of students*	*Female students*	*Percentage of female students*
Energy and installation	30	4	13
Energy and environment	20	4	20
Innovation and design	20	4	20

On the other hand, the engineering courses at Karlstad have, for the first time, attracted students from all over Sweden.

It should also be noted that the two engineering programmes in computer technology, normally being at the bottom of the list in engineering programmes, all of a sudden find themselves being the most attractive. This seems to prove that the new programmes do not "only cater for female students" - the new design have made them equally attractive to males and females, in other words, providing an education worthy an equallity between sexes programme.

The Linköping University IT-programme has an additional feature: it accepts, after a careful screening process, including interviews, also students that have not chosen the "right" (natural sciences) programme in their seconday school studies but have chosen the social science or economic mainstreams. Out of 38 students, 9 students (24%) come from such programmes.

The Teacher Exchange Programme

In the 1993 Education Bill, the then Minister, Mr *Per Unckel*, justifies his proposal of an additional SEK 28 million to the Council in terms of:

> making increased activities possible, e.g. to promote equality between sexes, continued stimulation of integrated environmental studies programmes, and to support an international exchange programme for academic teachers.[128]

thus accepting the proposals of the Council in its Estimates for the period 1993/94 -1995/96 concerning the integrated environmental studies programmes and the need for more teacher exchange in undergraduate education.[129]

Under the heading "International issues" the Minister continues

> However, most Swedish students will receive their university education in Sweden. For these students it is important that there is an international - in the first hand European - perspective in the spectrum of educational programmes presented at of the Swedish institutions of higher learning. To achieve this, the academic teacher would have a key role. To academics in areas where international research contacts are natural and lively, this presents no problem. However, to other academics, the European perspective is not obvious. There

128 Prop 1992/93:169, p 12.

129 *Anslagsframställning 1993/94-1995/96*, Occasional Paper No 3, June 1992, pp 62-68.

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> is a great need of activities stimulating international contacts for these academics.
>
> In autumn 1992 Sweden - as other Members of the EFTA organisation - was invited to comment on The Memorandum on Higher Education in the European Community. In a statement of the Swedish Government, having consulted all Swedish institutions of higher learning[130], I emphasized the importance of academic teachers as intermediaries of the European dimension, and the desirability of strengthening the ERASMUS-programme in this respect.
>
> I find this task of such an importance that new funding should be allocated for the support of an international teacher exchange programme already next fiscal year. This money should be used to make it possible for Swedish academics to study and work abroad, i.a. to advance their language proficiency and to secure a European dimension in the undergraduate programmes.
>
> I propose that SEK 15 million should be allocated under item D 41, The Council for the Renewal of Undergraduate Education, for this purpose...[131]

The Minister had made it obvious that, first of all, he wanted a "European perspective".[132] It therefore seemed reasonable to the Council to rule that 75% of the appropriated funding should support teacher exchange within Europe.[133] Within the European countries the Council set the following priorities:

- countries speaking a European major language other than English[134] (French, German, Italian and Spanish),

130 Including the Council.

131 Prop 1992/93:169, p 76.

132 All Sweden was preparing for the referendum (the following year) on whether to join the EU or not. Mr *Unckel* (conservative) and his party belonged to the advocates of Sweden joining the EU.

133 With the tacit agreement of the Ministry, this decision was reversed already the following year, opening the teacher exchange programme for all countries. It might be noted that this come about at the particular request of the student representatives of the Council.

134 By definition Swedish academics are expected to have a professional command of English which, of course, has led to closer contacts with the English-speaking countries than with the rest of Europe.

- other countries than the Nordic countries[135]
- Ireland and the U.K.

In order to follow the intentions of the Parliament[136] and the Government, the Council decided that a teacher exchange programme should comprise four phases

- a planning period,
- **compulsory** intensive language training,
- the actual teacher exchange, and
- a seminar at the home institution
  - describing differences in curricula and methods,
  - making a personal comparison of undergraduate edcuation standards at home and at visited department.

All academic institutions are full of (and fed up with) visitors from other countries. In Council jargon **visitors** could be desribed as foreign academics eliminated by department leadership by allowing them to do whatever they please, preferably at a distance from the institution's regular activities - "why don't you make yourself comfortable in our rather pleasant library, and, perhaps, before going back, you might give a seminar on your experiences in this country."

The Council certainly **does not** want visitors. Quite on the contrary, we **want colleagues** who would be prepared to take the responsibility for a full course, giving it the particular perspective of a foreign academic (and hopefully, also be in charge of the examination of the students on this particular course). The collective experience of the Members was, however, that this is no easy task. It does indeed presume careful planning

135 A special, ERASMUS-similar programme, the NORDPLUS, covers teacher and student exchange between the Nordic countries.

136 The Government porposal was endorsed by the Select Committtee for Education, 1992/93:UbU:14, p 135.

and, what is even more important, a personal commitment to the foreign institution.

The first phase of an approved teacher exchange therefore is a planning period of about six months, i.e. an exchange for spring term 1996 had to be applied for at the beginning of September 1995. During the planning period the Council makes the following funds available to the departments:

- the cost of one apex ticket from the home institution to the foreign institution,
- the cost of one apex ticket from the foreign institution to the home institution, and
- SEK 15.000 to cover board and lodging for the travellers during one week at each institution.

Two year's experience shows that the planning period is a very critical phase. At the beginning of the teacher exchange programme the Council was quite pleased to see departmental leaders doing the planning (and travel); however, this proved to be a mistake, and the Council nowadays insists that the person doing the planning should be the teacher who is actually involved in the exchange programme. About two thirds of Head of Department/Director of Studies planned teacher exchanges have, in fact, been aborted. The lesson to be learned again seems to be: in academia, it is the commitment of the individual teacher that matters, not the plans made by various authorities.

The Minister had also made it clear that he expected Swedish university teachers to take a greater interest in learning foreign languages. The second phase of the teacher exchange programme therefore is a compulsory intensive language course in the language of the country concerned, provided that this is one of the majority languages of Europe.[137]

137 Courses are offered in English, French, German, Italian and Spanish.

At the beginning this ruling was met with opposition from the participants, particularly from teachers making an exchange with an English-speaking country. All Swedish academics are supposed to be able to communicate in English, and, hence, courses in English were held to be unnecessary and uncalled for. However, the Council persisted in demanding attention to languages, including English.

The Council is indebted to the Pangbourne English Centre, and subcontracted centres, for doing an excellent job of providing a tailor-made orientation course, aiming at the use of professional English. Of more than 150 participants only one has not found the experience worthwhile and rewarding, in spite of the majority having a very good command of English before going.

It is, of course, less surprising that the courses in French, German, Italian and Spanish have been met with great enthusiasm by the participants. Although few Swedes would use another language than English as their means of communication with students from a foreign country, a two week intensive language training followed by at least six weeks stay in the country have improved their command of a second foreign language to a surprising degree.

It must be emphasized that these language courses really are intensive, and, of course, held in the country where the target language is spoken. The Council would not accept more than five students per teacher, making individual study programmes not only possible but necessary, and, in essence, problem based learning the objective. It is also interesting to note that the cost per day for the Council's language courses (including board and lodging, but excluding travel) is less than most Swedish state agencies charge for a one day seminar with 100+ participants!

Courses in German have been tailor-made by the Goethe Institut in Munich and held at different German university cities. Thanks to the co-operation of Professors Gunnel Engwall (Department of French and Italian) and Lars Falk (Department of Spanish) at the Stockholm University, the Council has arranged its own courses in French (Ms Alice

The new teacher exchange programme has added another dimension to the Councils projects and facilitated the creation of truly international projects. Photo: Kjell Johansson/Bildhuset.

Kustner and Dr Wandrille Micaut) in Aix-en Provence, in Italian at Lago di Como, and in Spanish (Mr Jasquin Masoliver) in Sevilla.

The third phase of the teacher exchange programme is the actual exchange of teachers. Although the Council pays the **additional** costs for an exchange programme (e.g. travel costs, board and lodging for both the foreign and the Swedish participants) to the participating departments, the Council refuses to take any responsibility for educational costs. Ideally, Dr Svensson from a certain institution is replaced by Dr Smith who is expected to give the students the same learning experience as would Dr Svensson (had he or she been at the department). From the Council's point of view, the fact that Dr Smith might have a different perspective on the topic concerned represents an **increase of the quality** of undergraduate education..

Most Swedish politicians and academic teachers seem to regard the teacher exchange programme as a costly, but possibly very fruitful, in-service training of Swedish university staff. This is obvious, but at the same time trivial; since the 13th Century, when Swedish students owned

two houses in Paris, Sweden has sent academics abroad as a means to widening their perspectives and to learn new traits. The really interesting aspect of the teacher exchange programme is that it gives many of those Swedish students who **are not** participating in various international programmes (like ERASMUS or SOCRATES) the opportunity to meet and discuss with academic teachers representing different traditions and values in courses of **their regular studies.**[138]

Partcularly since Sweden joined the European Community there has been some concern in this country that a new and broadened academic market to which only a small part of the population could gain entry for a number of reasons, might rapidly create new social differences: those with a European education and those with a domestic education only. At present about 15% of the Swedish student population study abroad, either as full-time students or spending an academic semester abroad. Even if this percentage were doubled till the year 2000, the overwhelming majority of Swedish students is going to study in Sweden. Consequently, the real academic challenge seems to be how to meet their needs for a more international perspective in their university education.

A well-designed and properly organised teacher exchange programme may be a useful tool to achieve such a goal. It is true that information technology will make students independent of a given institution for acquring facts, but as the Swedish University Chancellor, Professor *Stig Hagström*, has pointed out: "universities have a social function, and they create an intellectual environment that is important for undergraduate studies and research".[139] It seems reasonable to assume that one foreign academic teacher would meet and estabish relations with some 100 students during a sojourn at a Swedish university. As the present

138 Cf Mr Minister *Unckel's* statement in prop1992/93:169, p 76, quoted on pp 76-77.

139 *Universitetslärarens* Svenges Universitetslärarförbund, 1995:12, p 3.

Council funding would allow about 200 teacher exchanges per year; it would follow that some 20 000 Swedish students would be exposed to a teacher from another culture each year, or about twice as many as covered by the current international programmes at a considerably higher cost.[140]

It should also be pointed out that the European Union exchange programmes presume that studies abroad should be regarded as integral parts of a degree course, and, consequently, credits earned at a foreign university should be recognized at the home university. Such a rule presupposes that the academic contents and qualities of these programmes are known and respected by the examiners at the home institution, which in its turn means that a a common ground must be established between the institutions. Although e.g. the ERASMUS-programme includes the possibility of teacher exchange - after a considerable bureaucratic procedure which seems to deter many institutions from applying for funding - many students have found themselves in the unfortunate position that the home department, lacking academic relations with the institution abroad, has refused to give them credits for their studies at another university. Charity may begin at home, but, as stated by the Minister in his reply to the Memorandum, a teacher exchange should precede student exchange in order to build mutual trust and confidence.

While the Council welcomed the **exchange of colleagues**, as noted above, it wanted to **avoid visitors**. When planning the teacher exchange programme, the minimum time an academic teacher should spend at the foreign institution became an important issue. From a purely academic point of view one might say that not less than a year - or at the very least one academic semester - would be necessary for someone from abroad to be regarded as a colleague. However, if one

140 It should be remarked that the Council's overhead is c 7%, far less than most other institutions, including universities.

Lunch *en français*.

were not to restrict the programme to the odd few who do not have to take family considerations etc into account, it seems obvious that a shorter period would be necessary. After consulting a large number of Swedish academic teachers with international experiences - where lies the pain point for a Swedish academic teacher as far as teaching abroad is concerned? - the Council, reluctantly, decided to set the minimum time required as low as to six weeks; there were many voices advocating a minimum time of three months.

After the planning period the Council requests a detailed plan of the teaching given both at the Swedish institution by the foreign colleague and at the foreign institution by the Swede. The approval of the Council is a prerequisite for continued funding. Although differences in opinion - usually relating to the the amount of teaching expected and to the contents of this teaching - can often be settled in a dialogue between the department concerned and the Council, there are also examples of projects that have been terminated because the teaching of the foreign colleagues has not been part of the regular programme but seen as

"supplementary" courses (more often than not with voluntary participation). This does not satisfy the Council's notion of teacher exchange.

From whatever country, an exchange teacher in Sweden would have to teach in English, as we cannot expect all our regular students to cope with teaching in other foreign languages. It is interesting to note that the teaching in English - also by non-native English speakers - has been met with very little reluctance from the part of the Swedish students, which seems to indicate that they - often in contrast to the academic staff - are quite prepared to see their regular teacher replaced by a (competent) foreign teacher. There are, in fact, quite a few student evaluations of courses that find the foreign teachers a better support for learning than their Swedish counterparts. Hopefully, the Swedish academic teachers coming back from their period at the foreign institutions have a better perspective of their own teaching and can adapt themselves to the new, more international, climate of their departments.

The fourth and final phase of the teacher exchange programme is a seminar at Department or Faculty level to discuss possible differences in curricula and methods between the two institutions. In this connection a personal assessment of comparable quality to the teaching experience is also expected. The limited experiences of these seminars already show them to be an important starting point for development programmes within the Department.

Although there seems to be a growing interest from the traditional universities and professional schools in benefitting from the programme, the number of participating teachers from these institutions has been disappointingly low. On the other hand, particular involvement has been shown by the Health Care Colleges. Through this programme most of them have been able to build new international networks in a very short time (as was indeed the intention of the Minister when he initiated the programme).

The MEDCAL Programme

Medical Computer Assisted Learning

One of the strengths of a council is its obvious capacity to detect new trends among its constituents. In 1992, all of a sudden, the medical faculties demonstrated a new interest in multimedia - 9 out of 17 project applications in medicine were in this domain. At the same time it was evident that this was a spontaneous interest - four similar applications came from Departments of Anatomy from four institutions with a very clear lack of coordination.[141]

In a small country like Sweden it would, of course, be an almost criminal waste of public money to support several similar very expensive projects in the same discipline.[142] In fact, it could be argued that even national multimedia projects in Sweden would be too costly. On the other hand, the similarity with research is apparent - although Sweden contributes with only one per cent to the total world research volume, we still try to support research in all major areas, simply to make it possible for Swedish institutions to distinguish excellence from trivia in

141 It would appear that several Faculties had noted - and indeed had purchased (for educational purposes) - the American ADAM-programme and now wanted to amend this programme in different ways.

142 All applications had budgets well over SEK 1 million; the most expensive would cost more than SEK 3 million.

the findings of research in other countries that have to be "imported" to Sweden.

It could - and should - be argued that without a proper understanding of the fundamentals of the educational use of multimedia, the applications of programmes developed either commercially or at institutions in other countries would probably be too narrow, and not give Swedish students the full benefit of the evolution of information technology. Even if we cannot afford all the specialists and paraphernalia involved in commercial productions, the mere fact that Swedish academics have experimented with multimedia programmes in different ways would give a better understanding of why, when and how such programmes should be included in undergraduate education.

Thus, while the Council was prepared to give Swedish faculty a free hand to try various forms of multimedia in undergraduate education at its expense,[143] it insisted on national (and, in the long run, international) co-operation.

Consequently, the Council approached the Faculties concerned[144] and asked the Deans to appoint one representative to a national MEDCAL Committee, that would be chaired by Dr Nils-Holger Areskog, Professor of Clinical Physiology at Linköping University, and Member of the Council.

The MEDCAL Committee held its first meeting in March 1993, and set at its first task to investigate

- available computer (multimedia) facilities at the Swedish Schools of Medicine, Odontology, and Veterinary Medicine,

143 It should be kept in mind that other European countries, in particular the UK, had put in - at least from a Swedish point of view - enormous resources to try to interest teachers at institutions of higher learning for computer assisted instruction and multimedia learning.

144 Medicine, Odontology, and Veterinary Medicine. The Faculties of Odontology in Göteborg and Umeå are represented through their Faculty of Medicine.

- the (true?) interest of the various schools in computer assisted instruction and multimedia learning,
- "computer literacy" on the part of the students and teachers.

A questionnaire was designed and sent to all Faculties and Departments concerned.[145] The results were compiled by Professor *Göran Petersson*, Lund University.

The questionnaire showed that the use of computers in medical education varied a lot between the institutions, and that there was a considerable gap between the possiblities and actual applications of CAL, mainly due to the lack of appropriate software. The report[146] - which included recommendations to the Schools - was sent personally to all senior members of the institutions concerned, and resulted in lively discussions at all institutions, which in its turn, led to efforts to improve the organisation of CAL. One example is the Medical Faculty, Lund University, which has outlined a CAL policy including infrastructure, internet, curriculum, training for students and teachers, and software.

To organise a Swedish pilot production of software in medicine and related disciplines, the Council invited applicants and other interested to a demonstration of products and ideas in February 1994. It was interesting to note that the majority of the participants in this "mini-fair" met for the first time - again a demonstration of the need for national support also for undergraduate education. On this occasion the exchange of ideas and experience of different authorware software and systems was very lively, and has had a positive influence on the choice of interface and standards.

145 For various reasons the forthcoming study relied on data obtained a year earlier at the Karolinska Institute (the Medical School in Stockholm).

146 Göran Petersson and MEDCAL. *Datorstöd inom grundutbildningen vid de medicinska, odontologiska och veterinärmedicinska fakulteterna i Sverige*: Occasisonal paper No 8, January 1994.

Computorized man? Photo: Björn Malmberg/Megapix.

In connection with this demonstration the MEDCAL Committee listed a number of criteria for a possible Swedish production, e.g. focus on such software that is not availble on the international market, and on simulations that could be used as prototypes for further production. On the basis of these criteria the Council invited the original applicants to resubmit their applications for funding, and, after the customary procedure with reviews by national and international experts, the Council decided to finance five national projects at a cost of more than SEK 4 million over two years.

It should be noted that the Council added one important criterion: no one department or producer was allowed to work on its own - sister departments and interested teachers at other institutions **must** be involved and invited to give their comments during the production period. The reason for this is obviously to avoid the otherwise very strong "not invented here" syndrome.

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The Council has also appointed Professor Göran Petersson Co-ordinator of Medical and Medical Related Programmes on a part-time basis from 1st September 1994. He regularly visits the involved deparments to make sure that progress is made and to share information on new developments in Sweden and abroad.

It should also be noted that the MEDCAL Committee has sent several scout missions to Europe and to the US in order to investigate possible co-operation between Swedish and foreign academic institutions, and with commercial organisations. As we are at the beginning of a development period, it is true that Sweden - at present - has very little to offer; however, in a few years' time we expect to be able to capitalise on Swedish medical research and medical education, and to present worthwhile learning programmes utilising multimedia techniques of a very high international standard. It is our hope that we shall be able to use these productions as articles of exchange on the international market.

Everybody is estounded by the enormous expansion of the INTERNET, during the past few years. So is, of course, the Council. However, it is,as we all know, quite possible to be drowned in information, and it seems quite obvious to the Council that one or several sorting instruments ("filters") will be of decisive importance for academics wanting to use the facilities of the INTERNET.

Thus, in co-operation with our Australian Sister Council, we are developing a clearing-house for multimedia based learning in medicine and the health professions. Major multimedia programmes, both developed by Australian and Swedish institutions, and by other producers, will be reviewed by eminent Australian and Swedish teachers of medicine - and, which is very important - also by medical students, to assess their potence as learning instruments. This database will be open to Australian and Swedish academics, and to subscribers from other countries.[147] The Swedish editor of the database is Professor Göran Petersson, Lund University.

The MEDCAL Committee has worked well. It is therefore not surprising that the Council reacted similarly when the modern languages showed a sudden interest in multimedia in the 1994 round. A new group, the LINGCAL Committee, with represenatives of the Faculties[148] concerned, has already started its work under the chairmanship of Professor Jan Svartvik, Lund University.

147 This section of the Council's database can be reached from the Council's home page on the World Wide Web system which has the address of http://www.hgur.se.

148 Drs Tawfik Mekki-Berrada (Karlstad) and Ursula Wallin (Halmstad) represent the new University Colleges without a Faculty organisation.

Information Services

Database and International Reviews

The Government Ordinance specifically instructs the Council:

> to collect and disseminate information on planned, current and completed development activities of a fundamental and innovative nature concerning under-graduate education in Sweden and abroad.[149]

Even in the early 1990's this obviously meant developing a database, and the first attempts were being made in spring 1991 on a server at the Council's office connected to SUNET.[150] However, with the initiation of a network for databased learning in the autumn of 1991, it was only natural to integrate the database development with this network. The database was transferred to a server operated by Professor Kjöllerström at Lund University.

As this was the time when the client-server concept was developed, the Council made many mistakes. However, this database very soon became accessible from anywhere in the world through INTERNET and the gopher service.

149 SFS 1992:817.
150 The Swedish University Net.

The database comprised general information on the Council (e.g. ordinance, Members, deadlines for applications, and funded projects) as well as information of particular use to those interested in computer assisted learning (e.g. a newsletter with comments from the subscribers, a calendar of international events, and facts about the European Academic Software Award).

The assignment in March 1992 to support a new type of integrated environmental studies programmes called for a more developed database, as it was obvious that suitable textbooks were lacking, and that, consequently, students and teachers had to use Swedish and international libraries for suitable teaching and learning materials. The Council therefore decided to request the assistance of one of the university libraries. In a national competition in spring 1993 the Lund University Library was selected as the future operator of the Council's database services.[151]

In spite of an obsolete tender from the Council, the Lund University Librarian, Professor Göran Gellerstam, insisted that the new database should be an integrated database, meaning that each institution should be responsible only for its own data, and the client electronically connected to other servers without noticing this. It also became obvious that the gopher structure of the Council's database rapidly was becoming obsolete, not least because most of the items had to be added through a support system in Lund, regardless of the location of the editor of that particular database. In a review of the Council's information services, it was therefore proposed that the Council should operate a World-Wide-Web database connected to INTERNET with Lund University as our technical operator. Clients should have immediate access to e.g. the databases operated by our sister Council in Australia,[152] and

151 With Linköping University Library in charge of the training of librarians at the newer institutions in handling a database oriented towards environmental studies, cf p 60 ff above.

152 The Technical Director of the Council's databases visited Australia in the autumn of 1994 to agree on suitable and mutual protocols, etc.

other sources of particular interest,[153] and the responsible editor should be able to maintain his or her database from his or her office computer, no matter which server would actually contain the information. Although this presents no "technical" problem, it proved hard work and a number of consultants to make this come true.

From the beginning of September 1995 the Council's databases can be reached under three addresses:

- **http:// www.hsv.se**: look for subsection the Council for the Renewal Education on the Home Page.
- **http://www.hgur.se**.[154]
- **http:// www.ub2.lu.se/~hgur.**

The Council has deliberately chosen a home page without illustrations to make quick retrieval even on an overloaded INTERNET possible. The two first pages of the database(s) are illustrated on the following page.

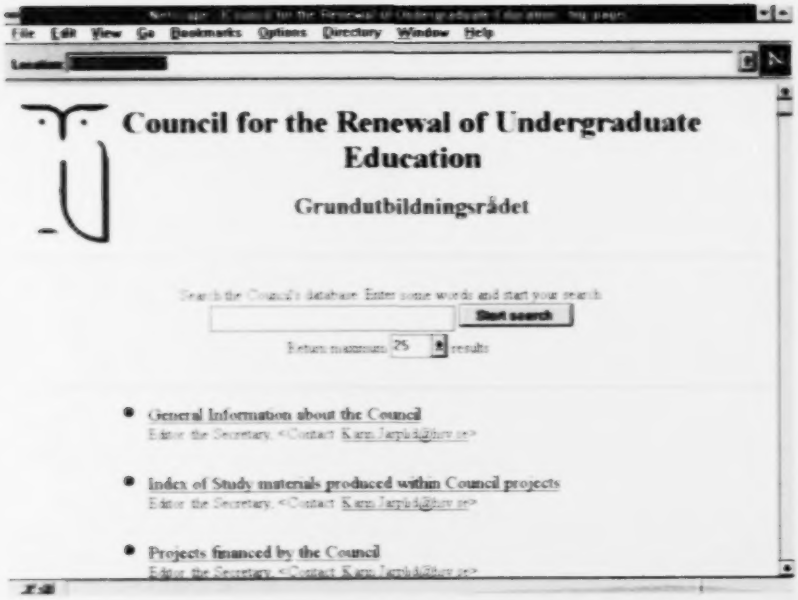
While the optimists predict a learning information revolution through the development of IT-technology, the pessimists foreshadow a development of data viruses and hacker performance that will make organisations less and less willing to connect to the NET. The Council reserves its opinion, but should like to point to the fact that that it has been an early user of INTERNET and also to the fact our First International Conference on Environmental Studies has been published in electronic format only.[155]

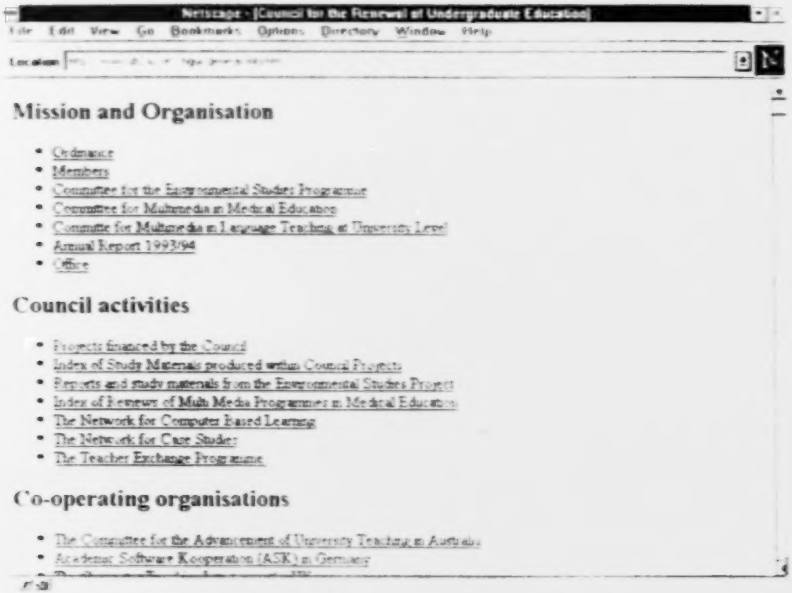
In general, Swedish faculty have little knowledge of curricula and teaching methods in their own disciplines at institutions abroad. As part of the information services the Council has therefore commissioned

153 First and foremost the CTI (the Computer Teaching Initiative) in the UK and ASK (*Akademische Software Kooperation*) in Germany, and CAUT, Australia.

154 As the Council has lost its earlier status as a national agency directly under the Ministry of Education, this address will become obsolete in the autumn of 1996.

155 Cf p 59.


File Edit View Go Bookmarks Options Directory Window Help
Council for the Renewal of Undergraduate Education
Grundutbildningsrådet
Start search
Return maximum 25 results
General Information about the Council
Index of Study materials produced within Council projects
Projects financed by the Council


File Edit View Go Bookmarks Options Directory Window Help
Mission and Organisation
Ordinance
Members
Committee for the Environmental Studies Programme
Committee for Multimedia in Medical Education
Committee for Multimedia in Language Teaching at University Level
Annual Report 1993/94
Office
Council activities
Projects financed by the Council
Index of Study Materials produced within Council Projects
Reports and study materials from the Environmental Studies Project
Index of Reviews of Multi Media Programmes in Medical Education
The Network for Computer Based Learning
The Network for Case Studies
The Teacher Exchange Programme
Co-operating organisations
The Committee for the Advancement of University Teaching in Australia
Academic Software Kooperation (ASK) in Germany

what has become known as "disciplinary reviews". The idea of such reviews is to enable two highly qualified and committed academic teachers to identify significant teaching developments in a particular discipline in European countries outside Sweden.

A review begins with the exploration of databases and the reading of relevant literature and periodicals to establish interesting institutions in Europe that should be visited. Two to three weeks are spent visiting sister departments in several countries, discussing problems and development in teaching and student learning with faculty and students. The results are published as a report in the Council's series of Occasional Papers which is sent to all senior academics in the particular discipline. So far two reviews have been completed dealing with Environmental Study Programmes[156] and Mathematics;[157] four new reviews are under way in Chemistry, Economics, History and Physics.

The Council has three series of Occasional Papers with a total of 18 volumes since 1992. Three volumes are out of print (please see database); the others can be ordered (in hard copy) from the Secretariat.

156 Reinhold Castensson (ed). *Miljöutbildning i Frankrike, Nederländerna, Storbritannien och Tyskland* (Environmental Study Programmes in France, Germany, the Netherlands and the UK). Occasional Paper No 1, June 1992.

157 Philip Brenner & Calle Jacobsson. *På jakt efter en främmande fågel - Innovativ matematikutbildning i Europa* (Innovative Mathematics Education in Europe.) Occadional Paper No 10, June 1994.

The Swedish Case Method Centre

The second 1991 application round demonstrated a strong interest in case studies, particularly in the fields of Business Administration, Political Science and Law. At the same time, it was obvious from the reviews of the Council's panel of international experts that Swedish competence, both in the production of case studies and in their use as teaching tools was fairly weak.

An inquiry to all universities and university colleges whether a Swedish Centre for Case Studies should be supported by the Council gave a positive response. There was a growing interest in case-studies as teaching tools in many subjects, and a national Centre that could disseminate information, be responsible for faculty development, and the production of "model cases" was welcomed.

At the same time Dr *Karl-Adam Bonnier*, Chairman of the Karl-Adam Bonnier Foundation, had tried to interest Swedish Business Schools and Law Schools in extending their use of case-studies. The Foundation had also organised a series of pedagogical seminars with international experts on teaching and learning, and it had sponsored several conferences on curriculum development in Business Administration and Law.

On the initiative of the Council a tripartite project was designed - the Council, the Foundation and one institution of higher learning - which should aim at the creation of a National Centre for a trial period of three years from 1st July 1992. All universities and professional schools were invited to tender for being the host institution of the Centre,

specifying what intellectual and economic resources would be allocated to the Centre by the institution.

By far the best offer was given by Stockholm University. The Centre which had a national wide responsibility was therefore housed at the Stockholm University Campus in Frescati, and three senior lecturers (in Political Science, Business Administration, and Law) from the University were seconded to the Centre on a half-time basis.

The Centre was financed by grants from the Council, the Karl-Adam Bonnier Foundation and Stockholm University. A Board was established under the chairmanship of Dr *Madeleine Leijonhufvud*, Professor of Criminal Law and Vice-President Academic of the University, and with representatives of the sponsoring organisations. Dr *Yngve Myrman*, Senior Lecturer in Political Science, was appointed Director.

The Centre has built a network of interested academic teachers in a multitude of disciplines. The network was served by a special newsletter, appearing twice every semester, and by annual workshops for the exchange of information and experience between network members. The Centre has also made an inventory of cases used at Swedish institutions, available in the Council's database.

One of the Centre's most important tasks was enhancing Swedish expertise in case method teaching and production. During the first year the Centre staff visited several British and North American Universities, well-known for their use of case studies in their undergraduate (and graduate) education, and they also participated in training courses in North America. From the second year on the Centre staff has given workshops and seminars at a number of Swedish institutions, and the Centre has also organised a couple of faculty training courses with North American experts as resource persons.

One tangible result of the Centre's activities is the manual *Casemetodik* (An Introduction to the Case Method)[158] which was given a wide

158 Bengt Kjellén, Konrad Lundberg & Yngve Myrman. *Casemetodik. En handbok*

Dr Myrman teaching cases. Photo: Yngve Fransson.

distribution to network members and departments of Political Science, Business Administration and Law. It was very well received by academics interested in the case method, and it is now out of print.

Other tangible results are the cases produced by the Centre.[159] These cases can be used free of charge at any Swedish institution of higher learning. It is interesting to note that cases originally intended for one academic discipline are often used in other disciplines. This is particularly true about cases dealing with the environment.

The Centre has also evaluated applications for a maximum of 10 stipends - each of SEK 10 000 - during the three year period awarded by the Karl-Adam Bonnier Foundation for the production of new cases in Business Administration and Law. It has also nominated the persons

om att undervisa och skriva, Occational Paper No 14, December 1994.

159 Cases are listed under the heading *Study Materials* in the Council's database.

to receive first prize for the best cases in Business Administration and Commercial Law set up by the Karl-Adam Bonnier Foundation.

As the trial period was coming to an end with the academic year 1994/95, the Board commissioned the Norwegian *LOS-Senter* in Bergen to evaluate the Centre. The evaluation was carried out in February 1995 by Dr *Ivar Bleiklie* who gave the Centre and its staff credit for a very good job.[160] However, as the case method seemed to have taken root at Stockholm University, and the University would continue to support a local centre, the Council and the Foundation felt that a new site and a somewhat changed organisation was justified.

With the network created by the National Centre as point of departure, the Council will endeavour to build local networks at universities and university colleges, including more subject areas than the three represented in the National Centre. With financial support from the Foundation training courses with international expertise will be organised for members of local networks, primarily in order to develop faculty's teaching skills, one of the lessons from the National Centre being that cases often are not fully utilized as many teachers are unaccustomed to this kind of interactive teaching. Two such courses are already planned for the autumn semester 1995, one in Göteborg and one in Lund.

Professor Dipak Khakhar, Informatics, Lund University, has been appointed Co-ordinating Officer, and will be seconded to the Council on a half-time basis from 1st July 1995.

To support the National Centre's training activities, the Council organised a special seminar on case method teaching for five departments of Business Administration during the past academic year, as members of these departments unsuccesfully had applied for Council grants to develop the use of cases in their teaching. The seminar included a study visit of one week to Darden Business School[161] for the Heads

160 The evaluation will be published by the National Agency for Higher Education shortly.

of Departments, and a four day training course for up to 10 members of their departments run by three professors from Darden.

Several such seminars in different disciplines will be arranged as part of the international programme.

161 University of Virginia, Charlottesville.

The now classic photo of the Founding Members at the steps of the Royal Swedish Academy of Sciences after the inaugural ceremony, March 1991.
Photo: Yngve Fransson.

The Council is committed to peer review. However, it is obviously important for its credibility that peers are committed also to the educational aspect of academic life. One of the first tasks of the Secretariat was to establish a new network of experts - experts in the teaching of the various disciplines. To make this new network more palatable to the university teachers, the Council therefore, at the

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recommendation of the Secretary, invited all Swedish academics who had been awarded the title of "outstanding teacher" by their institutions to join a **Society of Living Pedagogues**[162] in November 1990.

The Society has three aims:

- to enhance the quality of undergraduate education,
- to assist the Council in reviewing project applications,
- to assist the Council in collecting and disseminating information on completed, current, and planned projects of a fundamental and innovative nature concerning higher education in Sweden and abroad.[163]

The inaugural session took place in connection with a Council symposium at the Royal Swedish Academy of Sciences on 14th March 1991. The symposium was presided over by the President of the Academy, the late Professor Ingvar Lindquist, in the presence of the then Minister of Education and Cultural Affairs, Mr Bengt Göransson.

It was no coincidence that the inaugural session took place at the Royal Swedish Academy of Sciences. Professor Lindquist who had been an eminent teacher of chemistry at the Swedish University of Agriculture Sciences, was not only a great scientist but also a true academic: for him it was only natural that those who teach should be welcomed in the heart of science: to the Royal Academy.[164]

Incidentally, this was also the occasion when the Council first presented its now internationally well-known logo[165] - the stylized owl. It has

162 This playful name with an obvious reference to a then popular film was proposed by one of the student Members.

163 *Statutes of the Society of Living Pedagogues*, § 1.

164 In the Nobel Week the Royal Academy awards three stipends, in biology, chemistry and physics, to eminent teachers of these disciplines in Swedish secondary schools in honour of Professor Lindquist.

165 On the advice of Swedish graphic experts the Council asked the British firm *Banks and Miles* to develop our graphic image.

also become the symbol of the Society; if you meet a Swede wearing the owl-pin (particularly to evening dress) you can be certain that you have met a Member of the Society!

In his comments Mr Göransson remarked that he had never before met such a large group of academics radiating such high spirits, and he certainly would not have expected this to happen in a context of teaching. Again the Westling hypothesis seems to be verified: if you only show respect and appreciation to those committed to teaching, undergraduate education will not be shunned by the good academics; on the contrary, you are likely to find some of the best researchers convincing the young that their subject is not only the most important but also the most satisfactory for an inquisitive mind.

An interim committee, chaired by Professor *Gunnar Höglund*, Karolinska Institutet, was charged with the task of preparing the statutes for an independent Society. In November 1991 the statutes were approved by a member vote, and a formal steering committee was elected. Dr *Bengt Ekman*, School of Education, Uppsala, was elected first chairman, and the Society was on its way.

By statute the Society has convocations at all universities, with the responsibility of assisting all other institutions of higher learning in the area. Membership is no longer restricted to universities[166] and professional schools; literally all institutions of higher learning (except the Health Care Colleges) have Members of the Society. The Council has been financally supporting local events, and it is indeed at such gatherings that the real proceedings of the Society take part. The convocations normally meet twice an academic term to debate current issues, but larger manifestations have also taken place, e.g. when the Uppsala convocation arranged a seminar on "Quality in Higher Education" with

166 It may be worth noticing that also universities which formerly had refused to give prizes for "good teaching", e.g. Stockholm University, have now reversed their policies in order to have their "eminent teachers" eligible for membership in the Society .

the then Deputy Minister of Education, Mr *Bjarne Kirsebom*, both as main speaker and as discussant, attracting more than 300 academics (including two Vice-Chancellors) from the two universities in Uppsala.

In September 1995 the Society arranged its first seminar abroad - in Edinburgh. The theme was "The Academic Teachers' Responsibilities for their Students", a topic which is much discussed in Sweden today as a general move towards "Problem Based Learning" underlines the students' own responsibility for their learning. It is interesting to note that many leading academics in the UK found it worthwhile to meet with their Swedish colleagues comitted to undergraduate educuation. The fact that Sir Stewart Sutherland, Vice-Chancellor of the University of Edinburgh, former Vice-Chancellor of the University of London and the person behind the Academic Audit Unit, spent a morning discussing the problems of combining problem based instruction with a care for one's students, seem to indicate that the Society has reached international standing.

From the point of view of the Council, the Society has been a mine of wealth. Only on very rare occasions - and in these cases for very good reasons - have Members declined to review project applications for the Council or to serve as members of the subcommittees reviewing the "sketch applications". It gives us strength in our decisions to fund or not to fund, that the applications have been scrutinized by some of the best teachers of the realm.

There are also, however, some perks for Members. The Council has awarded the Society ten travel grants of SEK 30,000 each year, to be distributed among Members, thus making it possible for Members to go anywhere in the world where their curiosity leads them. This adds to Council's information about developments abroad ... (which, according to our directives, is a priority task of the Council).

Although some Members have been disturbed by the somewhat frivolous name of the Society, it has, on the whole, been well received by the academic community.[167]

Reflections

So far we have tried to portray a Council which could be described as having a positive development, entrusted with 10 times the funding it had when it was first established,

- having committed academic and student Members who have found the Council's activities worthwhile and stimulating,
- being met with appreciation in the Swedish academic community, and being a model for efforts in other countries to enhance the status of undergraduate education,

but also as a Council with activities that have constantly been developed and adjusted in accordance with signals received by events in the international academic community, from our political masters, from university leadership and from our project directors and the Swedish academic community at large, or, indeed, from Members and Officers of the Council itself.

167 Cf Professor Becher's evaluation report: "One respondent, not directly connected with the Council, described this as 'a crazy idea of Hans Jalling's which turned out to be a very good one - a sort of academy of people awarded university prizes for teaching'". *The Learning Council*, Ds 1992:120: Utbildningsdepartementet, p 37.

It was therefore disconcerting to find the Council's mission described as:

> a temporary stimulus, aiming at increasing the consciousness of university leadership of problems in undergraduate education, and enhancing their interest to suppport development work with internal funding.[168]

in the Government Report on the Structure of Agencies of Higher Education in Sweden. All of a sudden the Council seemed to have lost a former strong political support.

It must be admitted that the true concept of an undergraduate education council is very difficult to communicate both to faculty and to the surrounding world. In his evaluation Professor Tony Becher critisized the Council for lack of communication with its constituency already in 1992; in spite of increased efforts, it seems obvious that the Council has failed in this respect. However, there is little doubt that teaching is differently perceived than research by faculty.

The Teacher Exchange Programme is a case in point. The Council has set the minimum period to be spent at a foreign institution to six weeks. Even so, this length has been challenged as excessive by many Swedish academics, which, again, shows the difference in standing between research and undergraduate education. Most researchers would jump for joy if they were given the chance of spending six weeks at a foreign institution, particularly if the Council's perquisites such as a mutual planning period and language training are taken into account.

Many academics and institutions have declared that the optimum period would be three weeks, and the longest period possible four weeks. A longer period would disrupt the teaching of the department and cause all sorts of disasters.

This attitude to teacher exchange does not only show the difference between research and teaching. It also gives a clear indication of a limited

168 *Ett nytt högskoleverk*. SOU 1994:153, p 26.

international perspective as far as teaching is concerned, even within departments that have, as the then Minister put it, "international research contacts that are natural and lively" - in spite of all lip service paid to the "internationalisation" of higher education during the past two decades. In all fairness it should be pointed out that this is not only a Swedish problem, although the immobility of Swedish academics has been the concern of the authorities for a long time; many departments at foreign institutions have also declined to participate, because they could not possibly dispense with their teaching staff for such a long time. The idea that a foreign colleague might even give their students a better understanding of a "core curriculum" course by not having been brought up in the tradition of the institution, does not seem to have been part of the deliberations.

On the other hand, it could also be said that - with today's enormous flow of communication and information - it does take time to create an image. Given all the myths and prejudice of the academic world, four years is a very short time!

It must also be borne in mind that a small and poorly-funded Council provokes nobody. With a so far constantly increased budget the Council had perhaps become an irritation to those university leaders who doubted the whole concept of an undergraduate council, and who thought that this money was better spent by the institutions themselves.

Yet, would the FRiDA programmes in French grammar, used by almost every student of French in Sweden, or IDA, the first prize winning programme in the European contest, ever have been produced if the authors had to rely on institutional funds only? We think that the answer is no. Would there be long-term projects, combining the resources of the whole country, like MEDCAL and Multimedia in Modern Language Teaching?

We believe that a few important lessons can be drawn from the Council's experience.

First, as pointed out above, even in a decentralised organisation, there is a need for national funding. Very little has changed from the time when

the 1989 Commission on Higher Education returned its final report (in January 1992), and their findings about the need for an academic council for undergraduate education still seem to be valid.[169]

The Network for Computer Assisted Learning is also a relevant case. While the researchers from early on have been using computers, and have received extensive support from their institutions' computing expertise, very few teachers have had such a good break. Being "second class academics" they would have to wait. As Professor Kjöllerström, the Coordinator of the Network, puts it: "from the extent of institutional computer support, it is easy to classify someone as a researcher or as a teacher".

It is tempting to suggest that if there had not been an educational oriented computer network, teaching faculty would have been even more distressed and even more felt themselves as players in the farmer teams rather than in the National League. Looking back at the early 1990's, it is our view that the establishment of this network alone has been worth the money put into the Council.

Second, how can Presidents be convinced that a project proposed within their institutions is of national or international standards? After all, the concept of national (by the Council to a certain extent turned into international) competition, seems to be the best guarantee against petty institutional rivalry.

Third, the cost of developing computer based learning programme is very high. The FRiDA programme in French cost SEK 1.2 million to develop over three years. It is now **national property** and can be used free of charge by any student of French in Swedish institutions of higher learning. This would not have been the case if it had been developed at one institution.

169 Cf p 25 ff.

We have to recognize that in most cases teaching and learning programmes for higher education have a very limited commercial interest in a small country like Sweden.[170] The market is uncertain, and development costs are very high. If we want, an albeit small, domestic production of computer based learning programmes, it will have to rely on nationally, or even better, internationally supported funding. Is there a better way of guaranteeing such a production than by a national academic council of international renown?

If we move from computer based learning generally to multimedia based learning, the development costs are no longer high: they are astronomical. It could (and should!) be questioned whether a small country like Sweden should enter this race at all. However, the principles of research seem to be valid also in this case; although you may not belong to those at the frontline research, you must have a general experience of research to be able to distinguish the excellent from the trivial. Without having some knowledge of the principles for the development and use of educational programmes, you will lack the competence to even recognize the good programmes. Again, the solution seems to be a national academic council having the necessary competence, and having funds to stimulate thought among Swedish faculty.

Fourth, the old principle of "not invented here" is likely to have to yield to the combined forces of economic necessity and academic competition. It is surprising that so few academics have realized that the advent of information technology, e.g. the Internet, does not only mean that a new world of information is put into the hands of the individual; it also

170 There are, of course, exceptions. The two books produced in the project "Mathematics for the New Engineering Diploma" are of obvious commercial interest, and the Council had sold the rights to a publishing firm on the condition that copyright revenues are split 50/50 between the author (Dr Anders Tengstrand) and the Council.

means that the better-known institutions of higher learning are likely to offer their existing courses at a reasonable price on the world market - using the Internet and multimedia and computer assisted learning to make the package palatable to students in foreign countries. Thus, if we want to have a Swedish undergraduate education of high quality, we simply have to keep up with our competitors. A rational way seems to be to form international alliances, such as the one between the Council and its Sister Council in Australia.[171] In contrast, a non-rational way seems to be to declare that each institution is on its own - as the idelogy of decentralisation seems to presuppose.

Fifth, it could be argued that the Council should have stayed away from Government assignments such as the Integrated Environmental Studies Programme and the Programme for the Recruitment of more Female Students to Technology and the Natural Sciences. However, it could also be argued that the "council approach" has proved very effective.

It is true that there is still a long way to go until all regular courses in all disciplines at all institutions of higher learning have an integrated environmental component but we seem to be well under way. Moreover, the long-lasting effects of the series of environmental studies projects might well be a general move in undergraduate education towards Problem Based Learning. If this is the case, the projects funded have been in line with the Council's original instructions - to improve the quality and status of undergraduate education, making the most of the teachers' creativity and commitment.

Similarly, the recruitment projects at five institutions seem to be very successful, partly because they have not been subject to bureaucratic control. At the same time the Council has demonstrated an ability to make a distinction between its original task to support ideas and efforts to enhance the quality of undergraduate education coming from indivi-

171 CAUT, cf p 69 ff.

dual teachers (or group of teachers) and the Government assignments that are dealt with in a completely different mode.

Sixth, the Government idea of establishing **one central agency for higher education** has considerable merit. The surprising part of this development is, however, that no one - least of all our political masters - apparently even considered the possibility of including the research councils in this agency. In this respect the Council is back at square one; from being a semi-autonomous national agency at the National Board of Universities and Colleges, later a national agency in its own right, the Council has now been designated as a "guiding body in pedagogical matters" within a national agency, but without the automatic right to come to binding decisions and without a budget of its own.

We still believe that rewards in teaching and research should be as parallel as possible. It is important that academics feel equally at home in both worlds. We also believe that the records of the Council prove beyond reasonable doubt that analogous organisations for teaching and research tend to enhance the status of teaching. And **the question of status remains a critical issue.**

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